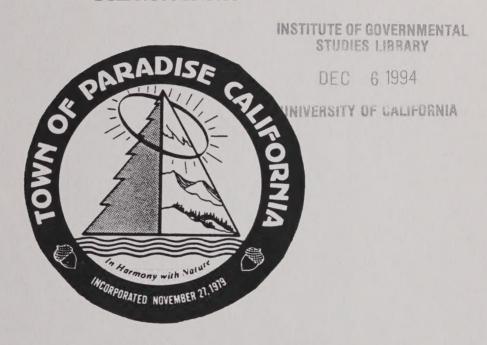
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TOWN OF PARADISE 1994 GENERAL PLAN

VOLUME II DRAFT ENVIRONMENTAL IMPACT REPORT

SCH NO. 91043055



Prepared for and distributed by:

THE TOWN OF PARADISE
as the Lead Agency
5555 Skyway
Paradise, CA 95969
Community Development Department
(916) 872-6284

May 1992

Prepared by:

QUAD Consultants 2530 J Street, Suite 302 Sacramento, CA 95816



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TOWN OF PARADISE GENERAL PLAN VOLUME II - ENVIRONMENTAL IMPACT REPORT

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SUMMARY OF DRAFT EIR

MITIGATION MONITORING PROGRAM

PROJECT DESCRIPTION

The proposed project is the adoption of a revised *General Plan* for the Town of Paradise and surrounding Planning Area. The planning period for the proposed *General Plan* is 1992 through 2007. The Paradise Planning Area is located in eastern Butte County in the western foothills of the Cascade-Sierra Nevada Mountains.

MITIGATION MONITORING PROGRAM

The California Environmental Quality Act (CEQA) prohibits a public agency from carrying out or approving a project for which an EIR identifies significant environmental effects, unless findings relative to mitigation of those effects have been made. Section 21081.6 of the Public Resources Code (CEQA) requires the agency making those findings--in this case, the Town Council of the Town of Paradise--to adopt a reporting or monitoring program for adopted or required changes to mitigate or avoid significant effects. This program must be designed to ensure compliance during project implementation. This code section also requires an agency having jurisdiction over natural resources affected by a project, if requested by the Lead Agency, to submit a proposed reporting or monitoring program for changes required or incorporated into the project at its request.

The proposed mitigation monitoring program for the proposed *General Plan* has been integrated with the Summary of Potential Impacts and Proposed Mitigation Measures which is set out on the table which follows.

In addition to the mitigation monitoring program set forth in the chart, the State General Plan Guidelines recommend that cities and counties establish formal procedures for regularly monitoring the effectiveness of their general plans. When a monitoring program reveals a plan inadequacy, the Town should amend or, if necessary, totally revise the general plan to bring it up to date. The Town should annually review and



amend, as necessary, those portions of the plan having a short-term focus, such as the implementation measures. The review should take into account the availability of new implementation tools, changes in funding sources, and the feedback from plan monitoring activities. State law requires the local planning agency to provide an annual report to the legislative body on the status of the plan and progress in its implementation.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The proposed *General Plan*, almost by definition, addresses a number of issues which are potentially controversial. Areas of controversy and issues to be resolved identified by residents of Paradise and interested agencies include the following:

- Rate, location and character of population growth and new development
- Residential lot sizes
- Loss of agricultural land
- Air quality impacts of growth
- Impacts of growth on wildlife and trees
- Institution of sewer service in the community
- Increased traffic
- Cost and need for new or expanded public services, including police and fire, schools, parks, sewage disposal and water service
- Aesthetics
- Annexation of developed areas such as Paradise Pines and the Lime Saddle area.

Impact Number	Impact	Mitigation Number	Mitigation Measures	Level of Significance After Plan Adoption/Mitigation	Monitoring Program
3.2.1-1	Excessive cuts and fills, excessive road grades, access hindered by topography		None required	Less than significant	None required
3.2.1-2	Modification of ridgelines, canyons or other significant land forms		None required	Less than significant	None required
3.3-1	Exposure of people and property to earthquakes		None available	Potentiall y significant	None required
3.3-2	Exposure of people and property to liquefaction, landslides, dam inundation hazards. Exposure of structures, roads and utilities to subsidence		None required	Less than significant	None required
3.4-1	Conversion of productive soils for timber production and grazing use to nonagricultural uses		None required	Less than significant	None required
3.4-2	Wind and water erosion and stream siltation due to soil disturbance from construction		None required	Less than significant	None required
3.5-1	Cumulative adverse impact on regional air quality	3.5-1	Installation and maintenance of air monitoring station in Paradise	Significant cumulative impact	To be requested from BCAPCD. Installation and maintenance by BCAPCD.
3.5-2	Emissions from heavy construction equipment and dust generation from grading activity		None available (construction equipment emissions)	Significant (construction equipment emissions)	None required (construction equipment emissions)
			None required (dust generated)	Less than significant (dust generation)	None required (dust generation)

Impact Number	Impact	Mitigation Number	Mitigation Measures	Level of Significance After Plan Adoption/Mitigation	Monitoring Program
3.5-3	Increased stationary source emissions from new business and industry		None required	Less than significant	None required
3.6-1	Exposure of people and property to onsite and offsite flooding. Increased runoff due to increase in impervious surfaces		None required	Less than significant	None required
3.6-2	Degradation of surface water quality and contamination of watershed	3.6-1	Compliance with NPDES standards. Design of stormwater treatment facilities to remove soluble, suspended and surface floating pollutants as well as sediments.	Less than significant	Monitoring by Town Engineering Office and Butte County Environmental Health Dept. Annual written reports submitted to Town and DFG for 5 years, with corrective recommendations
3.6-3	Degradation of groundwater quality		None required	Less than significant	None required
3.6-4	Potential to encounter unsafe drinking water		None required	Less than significant	None required

Impact Number	Impact	Mitigation Number	Mitigation Measures	Level of Significance After Plan Adoption/Mitigation	Monitoring Program
3.7-1	Loss of vernal pools, freshwater marsh, and riparian wetlands	3.7-1	Application for and receipt of federal Section 404 permits from U.S. Army Corps of Engineers	Less than significant	Issued by U.S. Army Corps of Engineers prior to Town approval of projects. Monitoring programs formulated through permit process.
		3.7-2	Application for and receipt of Streambed Alteration Permits from DFG		Issued by DFG prior to Town approval of projects. Monitoring by Town Engineering Office and DFG
		3.7-3	Setbacks and drainage restrictions for streams, lakes and wetlands		Annual written reports submitted to Town and DFG for 5 years, with corrective recommendations

Impact Number	Impact	Mitigation Number	Mitigation Measures	Level of Significance After Plan Adoption/Mitigation	Monitoring Program
3.7-2	Impact on wildlife resources, deer winter range, animal species of special concern (including bald eagle) due to loss of habitat	3.7-1	Biotic surveys, floristic studies, tree inventories of previously undeveloped sites prior to development. Setbacks and drainage restrictions as required	Potentially significant unavoidable impact	See above Study results submitted to DFG for review. Compliance monitored by Town Community Development Dept.
3.7-3	Loss of sensitive plant populations, including oak woodlands.	3.7-1	See above	Less than significant	See above
3.7-4	Impacts on fisheries in Butte Creek and Feather River due to erosion, sedimentation, siltation, streambed alteration and loss of riparian vegetation	3.7-2	See above	Less than significant	See above
3.8-1	Increased and continuing noise from major roadways		None required	Less than significant	None required
3.8-2	Increased noise or creation of new sources of noise from fixed noise sources		None required	Less than significant	None required
3.8-3	Increased noise due to increased operations at Paradise Skypark Airport		None required	Less than significant	None required

Impact Number	Impact	Mitigation Number	Mitigation Measures	Level of Significance After Plan Adoption/Mitigation	Monitoring Program
3.9-1	New sources of light and glare in previously undeveloped areas		None required	Less than significant	None required
3.10-1	Conversion of agricultural lands to nonagricultural use		See Impact 3.4-1	See Impact 3.4-1	See Impact 3.4-1
3.10-2	Substantial changes or alterations of present or planned land uses. See all other impacts		See all other mitigation measures		See all other monitoring programs
3.10-3	Land use conflicts between new and existing development		None required	Less than significant	None required
3.10-4	Growth-inducing impact. See all other impacts		See all other mitigation measures		See all other monitoring programs
3.11-1	Development of new housing compared to General Plan goals		None required	Less than significant	None required
3.11-2	Adverse impacts on existing housing		None required	Less than significant	None required
3.12-1	Exposure of people to potentially high levels of nuisance and disease vectoring mosquitoes and ticks; creation of new sources of vectors in planned wastewater treatment plant and stormwater retention basins	3.12-1	Proper design and maintenance of stormwater retention basins	Less than significant	Monitoring program requested from BCMAD
3.12-2	Traffic flow problems on evacuation routes in case of disaster		None required	Less than significant	None required

Impact Number	Impact	Mitigation Number	Mitigation Measures	Level of Significance After Plan Adoption/Mitigation	Monitoring Program
3.13-1	Traffic Generation at volumes that exceed Level of Service "C"	3.13-1	Development of additional east/west connector roadways	Less than significant	Road construction monitored by Town Engineering Office.
		3.13-2	Reconstruct intersection of Foster & Pearson Roads	Less than significant	Reconstruction monitored by Town Engineering Office
3.13-2	Cumulative impacts on Highways 70 and 99		None required	Less than significant	None required
3.14-1	Increased demand on police services		None required	Less than significant	None required
3.14-2	Increased fire protection demand		None required	Less than significant	None required
3.14-3	Increased structural and wildland fire hazard		None required	Less than significant	None required
3.14-4	Reduction of available landfill capacity		None required	Less than significant	None required
3.14-5	Need to extend solid waste collection services		None required	Less than significant	None required
3.14-6	Increased school enrollment		None required	Less than significant	None required
3.14-7	Increased demand on existing and for new public parks and recreational facilities		None required	Less than significant	None required
3.14-8	Increased water consumption, provision of adequate water supplies, and need for additional fire flow and peakload water supply		None available	Significant unavoidable cumulative impact	None required

Impact Number	Impact	Mitigation Number	Mitigation Measures	Level of Significance After Plan Adoption/Mitigation	Monitoring Program
3.14-9	Impact of additional septic systems. See Impact 3.6-3		None required	Less than significant	None required
3.14-10	Construction of wastewater treatment, collection and disposal system		See Final EIR SCH #88041912	See Final EIR SCH #88041912	
3.15-1	Disturbance or destruction of cultural resources		None required	Less than significant	None required
3.15-2	Obstruction of scenic vistas or creation of aesthetically offensive sites		None required	Less than significant	None required









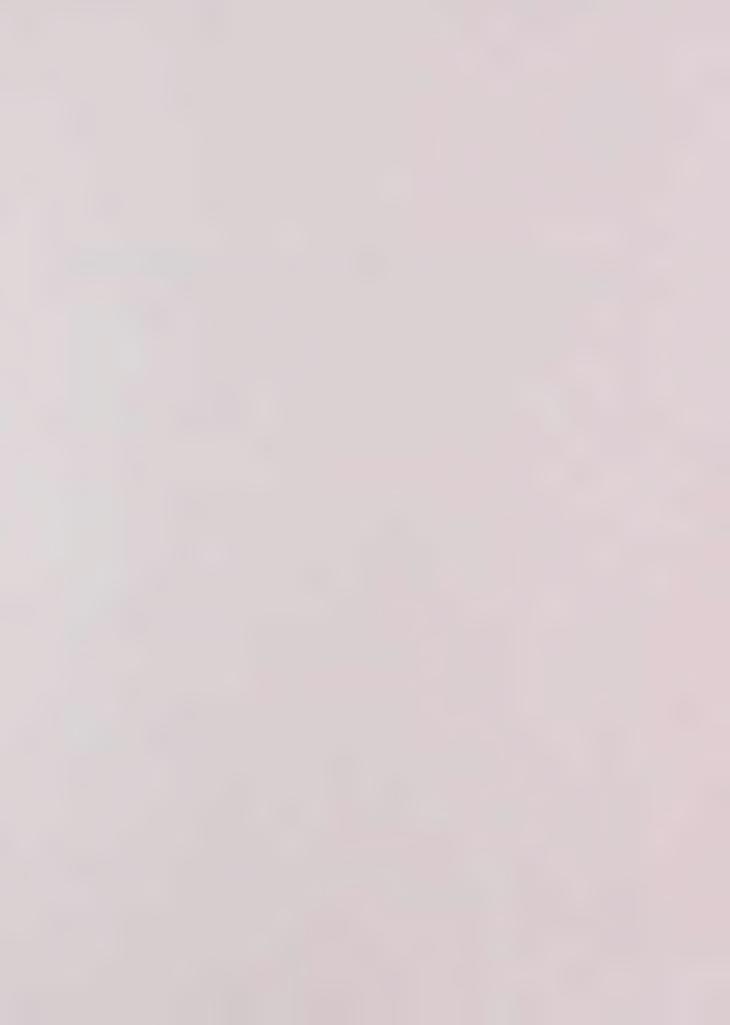
PREFACE

This Environmental Impact Report (EIR) has been prepared to address the potential effects of adopting and implementing a General Plan, referred to throughout this report as the *Paradise General Plan*, for the Town of Paradise and the surrounding Planning Area included in the General Plan. The EIR conforms to the requirements of the *California Environmental Quality Act of 1970 (CEQA)*, as amended, and the *State CEQA Guidelines*, as well as to the administrative procedures established by the Town of Paradise for the preparation and processing of EIRs. In accordance with Sections 15050 and 15367 of the *State CEQA Guidelines*, the Town of Paradise is designated as the lead agency for this report.

An EIR is an informational document intended to provide the general public and appropriate governmental decision-makers with a full understanding of the potential environmental effects of a proposed project. The EIR process is intended to enable public agencies to evaluate a project for determination of the significance of its effect(s) on the environment, to examine and institute methods of reducing and/or eliminating the severity of adverse impacts, and to consider alternatives to the project as proposed. CEQA requires that major consideration be given to preventing environmental damage. At the same time, it is recognized in CEQA that public agencies have obligations to balance other public objectives, including economic and social factors, in determining whether and how a project should be approved.

This EIR accompanies the *Paradise General Plan* Policy Document (including the seven mandatory elements), *Land Use Diagram* and *Circulation Diagram* (Volume I), which set out the proposed physical development and circulation system for the Planning Area. To an important extent, the considerations included in this EIR have influenced the content of, and direction established by, the General Plan. This EIR also incorporates by reference portions of the *Environmental Setting* document prepared for the *Paradise General Plan* (Volume III).

QUAD Consultants, a professional planning firm with offices in Sacramento, Visalia, Bakersfield and Fresno, California, assisted the Town with the preparation of this EIR and the *Paradise General Plan*.







CHAPTER ONE INTRODUCTION

1.1 PROPOSED ACTION

- **A.** The proposed actions for which this Environmental Impact Report (EIR) has been prepared include the following:
- Adoption and subsequent implementation of a General Plan for the Town of Paradise and the surrounding area, known as the *Paradise General Plan*.
- Subsequent Zoning and Subdivision Ordinance amendments and changes of zone to achieve consistency with the *General Plan*.
- **B.** The objectives of this project are to:
- Identify the Town's land use, circulation, environmental, economic and social goals and policies as they relate to land use and development through the year 2007.
- Provide a basis for Town decision-making, including a nexus to support development exactions as required by *Nollan v. California Coastal Commission* (1987).
- Provide citizens with opportunities to participate in the planning and decisionmaking processes of local government.
- Inform citizens, developers, decision-makers, other cities and Butte County of the ground rules that will guide development within the Town.

The area encompassed by the *General Plan* is described as the Paradise Planning Area. The Paradise Planning Area consists of the Town of Paradise and the surrounding Secondary and Tertiary Planning Areas to the north and south, as shown in Figure 2-3. All future development activities within this area, as well as the continuation of existing



or established uses, would be carried out or sustained in accordance with the adopted *Paradise General Plan*. The Plan will be adopted by, and administered under the auspices of, the Town of Paradise. For the portions of the Planning Area which are in the unincorporated area of Butte County, the County will be requested to adopt and administer an identical or substantially similar plan and approach to land use decision-making.

1.2 PROCEDURES

This EIR has been prepared for the Town of Paradise by QUAD Consultants in accordance with applicable provisions of the *California Environmental Quality Act* (CEQA) and the *State Guidelines for Implementation of the California Environmental Quality Act* (California Administrative Code, Title 14, Division 6, Chapter 3). As provided in Section 15121 (a) of the *Guidelines*, this EIR is to serve as an informational document that will:

...inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify ways to minimize the significant effects, and describe reasonable alternatives to the project...

Although a general plan and an EIR on a general plan are legally distinct, they must address many of the same concerns, and the processes for preparing them are similar. According to the *State General Plan Guidelines* a thorough process for revising an entire general plan will cover "virtually every substantive requirement of an EIR... A well-prepared general plan EIR covering broad geographic areas can increase the possibility that negative declarations can be issued at a later time for specific project proposals within the planning areas." The *CEQA Guidelines* recognize that a general plan EIR will not be as specific as an EIR on an individual project.

CEQA and the CEQA Guidelines authorize the use of the general plan EIR for subsequent discretionary projects in order to streamline and simplify environmental review. Through "tiering", the environmental review for subsequent project is limited to the additional significant effects which were not examined in the general plan EIR or effects which may be mitigated by specific revisions in the project.

The adoption of the proposed *Paradise General Plan* is a discretionary action of the Town of Paradise. Consequently, the Town is defined under CEQA as the *lead*

2-2



agency for the project. In accordance with State Planning Law and with the CEQA Guidelines, the Town will adopt the Plan only after a minimum of one public hearing each before the Planning Commission and the Town Council.

The Town, following a forty-five day public review and comment period on the Draft EIR and public testimony on the environmental effects of the Plan, will address concerns raised by the public and by responsible and trustee agencies (as defined by CEQA) in a published Final EIR. The Town Council will certify this Final EIR preceding the adoption of the *Paradise General Plan*. Measures and programs prescribed in the Final EIR to mitigate potentially significant effects on the environment associated with carrying out the General Plan and related actions will be imposed by the Town upon future developers, upon itself, and upon other parties involved in implementing aspects of the Plan.

1.3 METHODOLOGY/SCOPE OF EIR

This EIR discusses and evaluates the potential effects of the approval, and subsequent implementation, of a General Plan for the Town of Paradise and the surrounding Planning Area included in the General Plan. Included in this environmental analysis are the direct effects of building out the portions of the Planning Area designated for development, as well as the cumulative and growth-inducing effects upon the community and regional environments. The EIR will also take into consideration the mitigating effects of many of the goals, objectives, policies and implementation measures which are a part of the General Plan.

In April 1991, the Town of Paradise distributed a Notice of Preparation (NOP) of the subject EIR, inviting responsible and trustee agencies and other interested parties to comment upon the appropriate scope of the environmental analysis. A copy of this NOP, and of the responses received by the Town, are included as Appendices A and B, respectively, of Volume II, *Environmental Impact Report*.

Based upon the Initial Study of the Plan's potential environmental effects and upon the comments received in response to the referenced NOP (see Appendices A and B), it has been determined that this EIR should be focused upon the following aspects of the environment:

Topography



- Geology/Seismicity
- Soils
- Air Quality
- Hydrology
- Vegetation and Wildlife
- Noise
- Light and Glare
- Land Use and Population
- Housing
- Health Hazards and Safety
- Transportation and Circulation
- Public Facilities and Services
- Scenic and Cultural Resources

Aspects of the environment other than those listed and discussed above have been determined by the Town of Paradise to be unlikely to incur significant Plan related impacts. This EIR, therefore, will be confined to the topical areas referenced and to CEQA - mandated discussion of such general issues as the Plan's possible irreversible environmental effects, alternatives to the proposed Plan, and the comparative environmental superiority among such alternatives.

According to the State General Plan Guidelines:

Because a general plan and its EIR overlap in content and should be prepared as part of a single planning process, local governments may want



to combine them into a single document or set of documents (CEQA Guidelines, Section 15166).

Three documents have been prepared which, taken together, constitute this Environmental Impact Report. Volume III, the *Environmental Setting*, contains information on the physical and environmental setting, including inventories of soils, geology, hydrology, air quality, vegetation, wildlife, energy, cultural heritage, ambient noise, existing land use, transportation, population, public services, and water quality, and a description of relevant local and regional plans. This document constitutes both the data and analysis out of which General Plan policies have evolved and the environmental setting section of the EIR.

The first document, Volume I, *Policy Document*, consists of the policies, plan proposals, standards and implementation program of the General Plan. In essence, this document is the project and constitutes the project description for purposes of CEQA. This document, Volume III, consists of the environmental assessment - the discussion of effects, mitigation measures, and alternatives which satisfies the requirements of an EIR. Ultimately, the three documents are to be certified as the EIR, while Volumes I and II are to be adopted as the General Plan.

The scope and analysis of the issues discussed above conforms to the *Standards* for Adequacy of an EIR (CEQA Guidelines Section 15151), which states:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An analysis of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement, among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

The environmental effects of a change in an adopted plan and the range of discussion of potential impacts for issues such as police and fire protection and schools are guided in this EIR by the definition of "environment" in the CEQA Guidelines:



Environment means the physical conditions which exist within the area which will be affected by the proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. (Section 15360)

Further, Section 15146 (b) states that "An EIR on projects such as the adoption or amendment of ...a local general plan should focus on the secondary effects that can be expected to follow from the adoption, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow. Accordingly, the impacts of the proposed *Paradise General Plan* and related actions are not evaluated in terms of change just in allowable land uses from the current Town General Plan and zoning plan, but rather in terms of the actual effects on the physical environment, as it exists now, attributable to Plan *implementation*. It should be noted that possible social and/or economic effects of a project are not considered environmental impacts under CEQA, unless they, in turn, result in adverse, identifiable effects on the *physical* environment.

The consideration of alternatives to the proposed project in this EIR has been conducted in conformance with Section 15126 (d) of the CEQA Guidelines, which prescribes:

- (3) The discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance...
- (5) The range of alternatives required in an EIR is governed by "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation.

The next chapter of this report describes the project in greater detail and summarizes the general characteristics of the Planning Area and vicinity. Chapter Three of this EIR describes specific characteristics of the Plan's environmental setting, organized within the framework of the topical areas of focus prescribed in response to the Town's Initial Study and responses to the Notice of Preparation. Chapter Three also identifies and discusses potentially significant project-related impacts on those selected aspects of the environment and sets forth mitigation measures for these impacts, as



appropriate. Chapter Four evaluates alternatives to the proposed Plan, including: the alternative of no Plan update, and alternative land use and circulation system scenarios. An alternative location for the Plan is evaluated only to the extent that alternative Planning Area boundaries have been considered.

The fifth and final chapter of this EIR summarizes significant environmental effects of the proposed Plan which cannot be avoided and evaluates the cumulative impacts and growth-inducement potential of the project. Following the text of this report, several appendices and references have been included to facilitate full environmental review of the Plan. Additional technical appendices referred to in this EIR document are included in Volume II, *Environmental Setting*, addressing in detail key aspects of the *Paradise General Plan's* environmental setting. Those technical appendices are to be regarded as an integral part of this EIR.







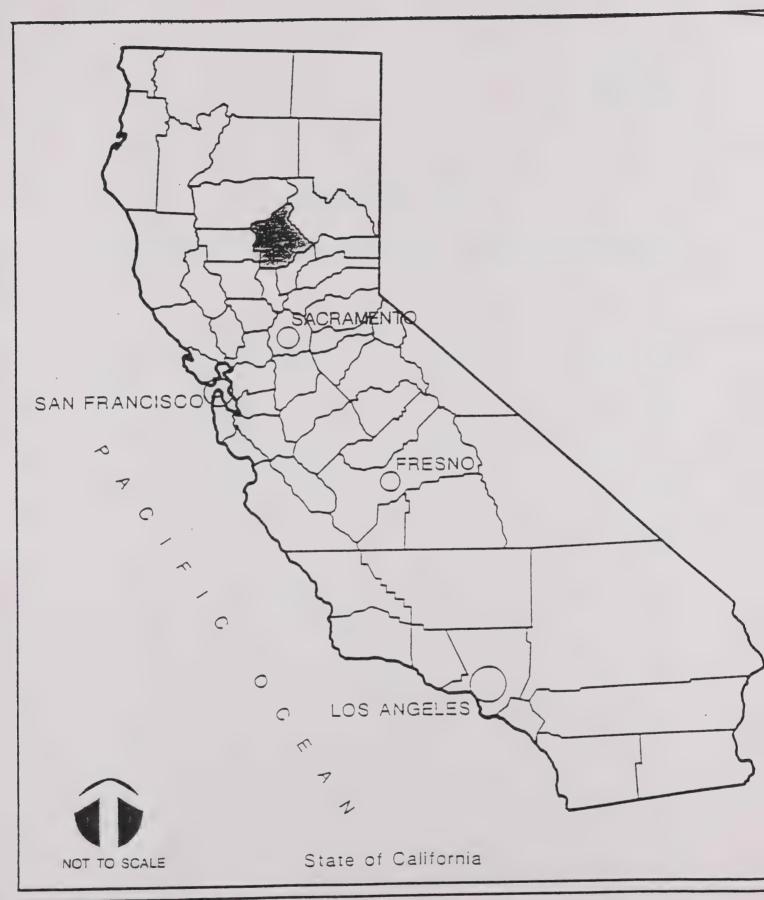
CHAPTER TWO PROJECT DESCRIPTION

2.1 LOCATION

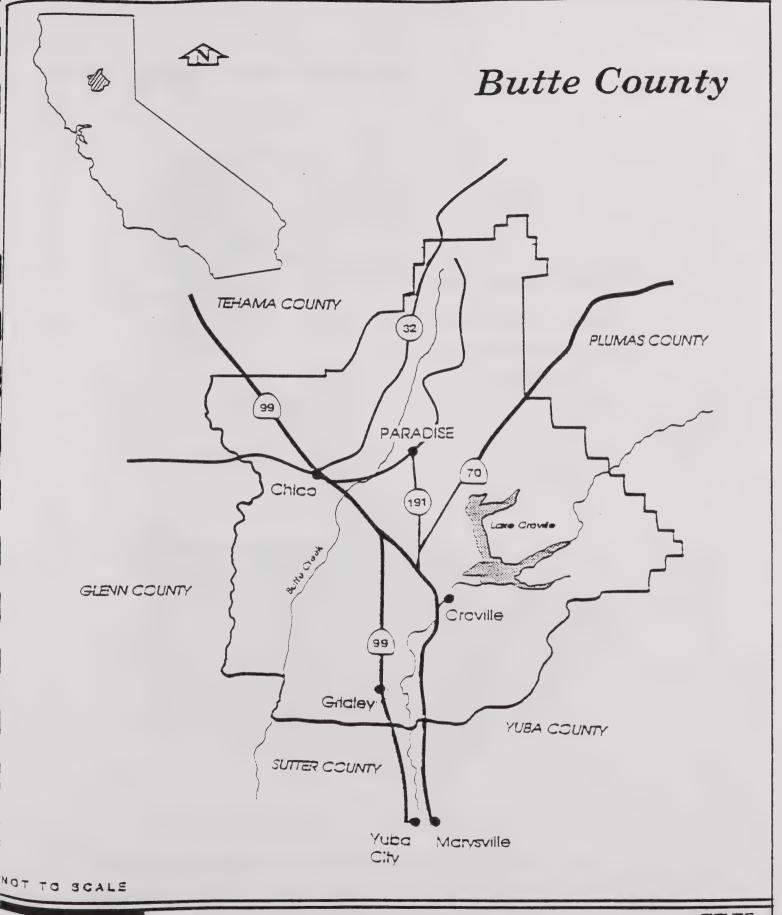
The Planning Area for the proposed *Paradise General Plan* is situated in eastern Butte County in the western foothills of the Cascade-Sierra Nevada Mountains and includes the Town of Paradise and surrounding unincorporated area of Butte County (see Figures 2-1 and 2-2). Located north of Paradise are the smaller unincorporated communities of Magalia, Paradise Pines, Nimshew and De Sabla; to the south of the Town is the Lime Saddle area. These areas are known as the Upper and Lower (Eden) Ridge, respectively. To the southeast is the City of Oroville (the County seat), and to the west is the City of Chico. State Route 191 and the Skyway are the primary access routes to the Town from State Highway 99. State Route 191 becomes Clark Road and bisects the community, ending near the northerly town limits. The South Fork of the Feather River flows through the Feather River Canyon along the easterly edge of the community.

Three study areas were established for the Town and surrounding areas for the purpose of the *General Plan*: the Primary Study Area, which reflects the existing Town limits; the Secondary Study Area, which encompasses the existing Sphere of Influence boundary adopted for the Town by the Butte County Local Agency Formation Commission (LAFCO); and the Tertiary Study Area, which extends to the south and west to Highway 99 and Pentz Road. The *Paradise General Plan* refers to these areas as the Primary, Secondary, and Tertiary Planning Areas respectively. These areas are shown on Figure 2-3. For purposes of the EIR, the terms "Study Area", "Planning Area" or "Plan Area" refer collectively to the Primary, Secondary and Tertiary Study Areas.

The Paradise town limits (Primary Study Area) encompasses approximately 11,820 acres, and the Secondary Study Area includes an additional 17,686 acres. The Planning Area includes all or portions of Sections 1, 2, 11, 12, 13, 14, 23, 24, 25, 26, 35 and 36, Township 23 North, Range 3 East; Sections 7, 18, 19, 30 and 31, Township 23 North, Range 4 East; Sections 1,2,3,9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36, Township 22 North, Range





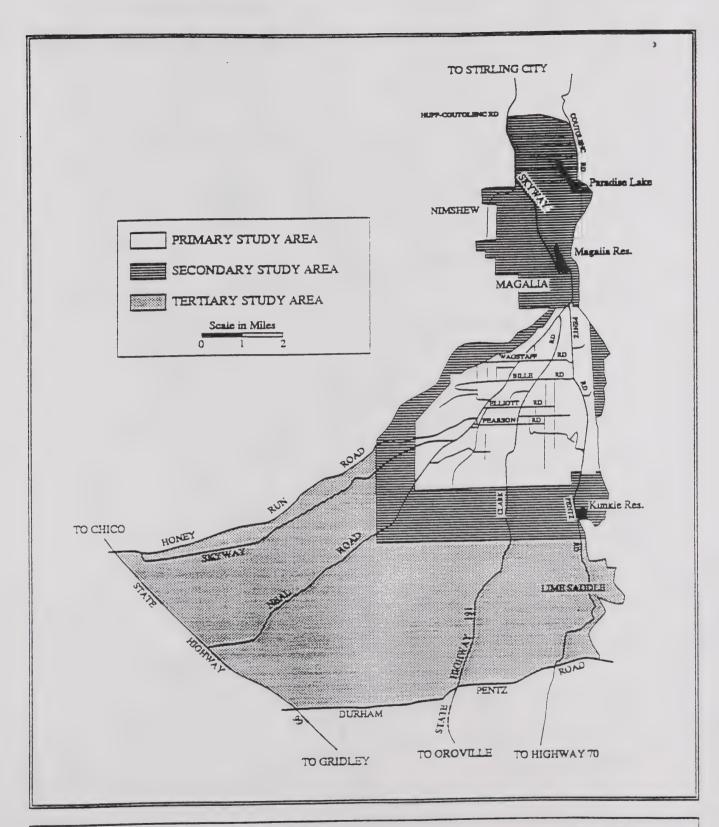


BUAD BANGULTANTS

REGIONAL LOCATION

FIGURE

2-2





3 East; Sections 6, 7, 18, 19, 30 and 31, Township 22 North, Range 4 East; Sections 1 through 31, Township 21 North, Range 3 East; Sections 6, 7, 8, 17, 18 and 19, Township 21 North, Range 4 East; Sections 25, 34, 35 and 36, Township 22 North, Range 2 East; Sections 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 22, 23, 24, 25, and 26, Township 21 North, Range 2 East; Mount Diablo Base and Meridian; and a portion of the Esquon Rancho Spanish land grant, which has not been surveyed.

2.2 DESCRIPTION OF PROPOSED GENERAL PLAN

Chapter 1.0 of Volume I, the *Policy Document*, Section 1.1 explains the purpose and nature of the *General Plan*. Chapter 2.0 describes the *Land Use Diagram*, *Circulation Diagram* and *Land Use Constraints Diagram* and includes land use designations and standards, circulation system classifications, planned circulation system improvements and classifications, and a population density/land use and building intensity matrix. Chapter 6.0 contains the goals, objectives, policies, implementation measures, standards and programs which comprise the *Paradise General Plan*.

2.3 RELATED ACTIONS

Following adoption of the *Paradise General Plan*, the Town will undertake amendments to the Zoning and Subdivision Ordinances to achieve consistency with the *General Plan*. It is intended that this EIR will also be used by the Town as the environmental documentation for subsequent proposed Zoning and Subdivision Ordinance amendments.









CHAPTER THREE ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.1 INTRODUCTION

As discussed in Chapter One, this EIR has been prepared to address the potential environmental effects of the adoption and implementation of a *General Plan* to guide land use, development and transportation systems in and around the Town of Paradise. Chapter One also identified the aspects of the environment which might be affected significantly by the Plan. In the following sections of this chapter, each of these aspects of the environment is discussed. For each topical area considered, reference is made to the relevant section(s) of Volume III, the *Environmental Setting*, for a description of the setting. Potential project-related impacts upon that setting are identified, and means of mitigating possible significant environmental impacts are outlined.

It should be noted that CEQA requires an EIR to suggest mitigation measures which will potentially offset any identified significant effects upon the environment, if such measures are available. It should also be noted that the *State CEQA Guidelines* mandate that mitigation measures proposed to be incorporated into the project must be distinguished from those proposed independently in the EIR. Finally, State law requires that the agency or other party responsible for carrying out identified mitigation measures be designated through the CEQA process. Accordingly, this EIR specifies, for each mitigation measure it proposes, the party responsible for its implementation.

Because this is an EIR for a general plan, the goals, objectives, policies, and implementation measures of the Plan itself are designed to mitigate or avoid impacts on the environment. Reference will be made to the pertinent Plan policy statement when that constitutes a mitigation measure. Additional mitigation measures may be incorporated into the Plan, if relevant, or simply incorporated into the *Mitigation Monitoring/Reporting Program* adopted for the Plan.



Table 3.1-1 which follows presents estimated acreage, square footage, dwelling units and population at *General Plan* buildout for the Primary and Secondary Planning Areas. This table will be referenced throughout this Chapter.

3.2 TOPOGRAPHY

Setting:

Please refer to Section 3.1 of Volume III, *Environmental Setting*, for a description of the topography of the Paradise Planning Area.

Impacts:

Impact Evaluation Criteria: The Uniform Building Code establishes standards with regard to construction on slopes. The Town of Paradise has amended Chapter 70 of the Uniform Building Code to impose additional requirements with regard to grading, slopes and erosion control. The significance of topographic-related impacts can be measured in comparison to these thresholds and a determination made as to whether the topographical features of the Planning Area impede compliance with these standards, or whether the Plan prescribes development which conflicts with these standards.

Impacts of Planning Area development must also be evaluated to determine the potential for site modifications to cause any impact to unique landforms such as ridgelines and canyons.

Impact #3.2.1-1: Potential for land development and construction or improvement of roads and other infrastructure in accordance with the *Paradise General Plan* which will create excessive cuts and fills or result in excessive road grades. Potential for topography to hinder adequate access.

Conclusion: The Planning Area contains excessively sloping lands (refer to Figure 3-1, Slope, of Volume III, *Environmental Setting*) and the potential exists for significant impacts to occur if development and construction were unregulated. However, the policy statements that are incorporated in the proposed *Paradise General Plan* and the regulations of the Town Subdivision Ordinance, Town Zoning Ordinance, Town Improvement

 $\begin{array}{c} \text{TABLE } 3.1-1 \\ \text{GENERAL PLAN BUILDOUT} \\ \text{ACREAGE, DWELLING UNITS AND POPULATION} \end{array}$

Primary Area								
Land Use Category	Existing Acreage by Land Use ¹	Existing Units/Sq. Ft. ²	Potential New Acreage ³	Potential New Units/Sq. Ft.4	Buildout Units/Sq. Ft. ⁵	Total Persons	Acreage ⁶	
Agricultural Residential	-	-	1,587	317 u	317 u	748	1,587	
Suburban Residential	-	-	1,454	2,181 u	2,181 u	5,147	7,942	
Town Residential	5,348	10,883 u	58	87 u	10,970 u	25,889	317	
Multi-Family Residential	146	796 u	72	540 u	1,336 u	2,565	479	
Neighborhood Commercial	-		3	32,670 sf	32,670 sf	-	23	
Central Commercial	-	-	4	87,120 sf	87,120 sf	-	128	
Town Commercial	318	1,558,124 sf	42	457,380 sf	2,015,504 sf	-	436	
Business Park		-	-	-	-	-	-	
Light Industrial	30	310,500 sf	141	1,006,236 sf	1,316,736 sf	-	212	
Community Service	56	195,000 sf	71	87,120 sf	282,120 sf	-	166	
Public Institutional	414	666,405 sf	-	-	666,405 sf	-	175	
Recreational	147	_	-	-	•	-	205	
Open Space/Agriculture	145	-	-	-	-	-	175	
Timber Production	-	-	-	-	-	-		
Totals						34,349	11,845	

		Secondary Area		Full Buildout ⁷				
Acreage ⁶	Potential New Units/Sq. Ft. ⁴	Existing Units/Sq. Ft. ²	Buildout Units/Sq. F ^{t.5}	Total Persons ⁸	Total Acres	Total Units	Total Persons	Total Sq.
3,392	678 u	-	678 u	1,600	4,979	995	2,348	-
2,586	1,124 u	4,906 u	5,220 u	12,319	10,528	7,401	17,466	-
-	-	-	-	-	317	10,970	25,889	-
-	147 u	12 u	159 u	305	479	1,495	2,870	-
1	-	10,890 sf	10,890 sf	-	24	-	-	43,560
-	-	-	-	-	128	-	•	87,120
330	-	99,350 sf	99,350 sf	-	766	-	-	2,114,854
280	896,819 sf	-	896,819 sf	-	280	· -	-	896,819
-	-	10,000 sf	10,000 sf	-	212	-	-	1,326,7
63	108,900 sf	-	108,900 sf	-	229	-	•	391,020
1,398	-	121,737 sf	121,737 sf	-	1,573	-	•	788,14
262	-	-	-	-	467	-	•	-
8,811	-	-	-	-	8,986	-	•	-
588	de	-		-	588	-	-	-
17,711				14,224	29,556	20,861	48,573	

- Based on Existing Land Use Survey.
- 2. Based on Housing Condition Surveys, March 1991 and February 1990, and documentation for the development of the Paradise Area Transportation Model Planning prepared for the Butte County Council of Governments, October 1990; Mobilehomes are included with single family units.
- 3. Based on land use designation and vacant land gross acreage.
- Based on population density and building intensity ratios contained in Table 2-1. Residential densities are figured on the averaged allowable density; AR density is figured on 1 unit/5 acres. Commercial, Business Park and Industrial caluclations allow for property constraints.
- 5. Based on existing plus potential new, allowing for property constraints, and where data on existing square footage is available.
- 6. Based on total gross acres allocated to each land use category under General plan.
- 7. Primary Area plus Secondary Area.
- 8. Based on average household size of 2.36 for single family dwellings and 1.92 for multiple family dwellings.



Standards and the Uniform Building Code, as amended by the Town, will reduce these potential impacts to a level which is less than significant.

The proposed policy statements which are incorporated in the *General Plan* which will reduce impacts on topography are as follows:

Land Use Element

LUP-1 The limitations imposed on the Paradise area by topography, soils and other physical features shall be recognized in site-specific design as well as when establishing long-term growth objectives.

LUP-2 Building on slopes in excess of 30 percent shall not be permitted.

Safety Element

SP-18 The Town shall require all development proposals on sites which contain slopes exceeding 20 percent, and/or which border or include significant and sensitive streamcourses or natural drainageways, to include programs for replanting and slope stabilization, erosion control plans, and to incorporate designs which minimize grading and cut-and-fill.

SP-19 Building on slopes in excess of 30 percent shall not be permitted.

The Town has amended the Uniform Building Code to read as follows:

Section 7001. The purpose of this chapter is to safeguard life, limb, property and the public welfare, and to preserve and enhance



the natural environment by preventing and eliminating conditions of accelerated erosion and by regulating grading on private and public property in the incorporated areas of the Town of Paradise.

Section 7002. This chapter sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments, and erosion and sediment control; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading, erosion and sediment control operations.

Section 7003. No person shall do any grading, clearing or grubbing without first having obtained a grading permit from the Town Engineer except for the following:

- 1. An excavation which does not exceed two feet in vertical depth at its deepest point measured from the original ground surface and which does not create a cut slope greater than four feet in height and steeper than one and one-half horizontal to one vertical and does not exceed twenty-five cubic yards of material,
- 2. A fill that does not exceed one foot in vertical depth and is placed on natural terrain with a slope flatter than five horizontal to one vertical at its deepest point measured from the natural ground surface, or less than three feet in depth, not intended to support structures, which does not exceed twenty-five cubic yards on any one lot and does not change the existing drainage pattern,
- 3. Temporary excavations in a public street or right-of-way for which a permit has been issued by the Department of Public Works,
- 4. An excavation below finish grade for a basement, footing, retaining wall, swimming pool, or other structure authorized by a valid permit, which excavation will be completely occupied by and retained by the structure authorized by valid building permit,



5. A fill above existing grade, which fill will be retained by the exterior wall of a building, a retaining wall, swimming pool or other structure authorized by a valid building permit.

The Town has adopted design specifications for public and private roads and streets which include the requirement that public street or road grades shall not exceed ten percent except with written permission of the Town Engineer. The maximum grade for private roads or streets is thirteen percent. Under certain conditions where it is obvious the proposed roads will never serve more than six to eight lots, no hazardous traveling is envisioned, and it is deemed the health and safety of all who may use such roadway are not endangered with consideration given to road construction, erosion, surfacing and cross slope, the maximum grade may be greater than thirteen percent but not to exceed fifteen percent. Any grade in excess of thirteen percent is required to have an all-weather, non-skid surface.

Because all construction and development must be in compliance with these policies and regulations, this impact is found to be less than significant and no mitigation measures are required.

Impact #3.2.1-2: Potential for modification of ridgelines, canyons or other significant landforms during construction and development in accordance with the *General Plan*.

Conclusion: Ridgelines and canyons are dominant features of the topography of the Paradise Planning Area. The potential exists for significant impacts to occur if development and construction were unregulated. However, the policy statements which have been incorporated in the proposed *Paradise General Plan* and the regulations of the adopted Town Improvement Standards and Uniform Building Code, as amended, will reduce these potential impacts to a level which is less than significant.

4-5



The policies that are incorporated in the proposed *General Plan*, in addition to those listed in Impact #3.2.1-1 above, which will reduce impacts on significant landforms are as follows:

Open Space/Conservation/Energy Element

OCEP-17 Ridgeline development shall be carefully reviewed to assure a minimization of proposed structures that intrude into the view-line of nearby roadways and properties.

OCEP-27 Open space or resource conservation zoning shall be established for sensitive lands such as areas of resource production, steep canyons and stream corridors, and areas of significant natural resource value.

Because all construction and development must be in compliance with these policies and regulations, this impact is found to be less than significant and no mitigation measures are required.

Mitigation Measures:

Because no significant impacts have been identified, no mitigation measures are required.

3.3 GEOLOGY/SEISMICITY

Setting:

Please refer to Section 3.2 of Volume III, *Environmental Setting*, for a description of geology and seismicity of the Paradise Planning Area.

Impacts:

Impact Evaluation Criteria: All of Butte County is situated in a UBC Risk Zone 3 and rated VIII by the Modified Mercalli Intensity Scale. A total of 3,125 new dwelling units and 1.67 million square feet of new commercial, industrial and other structures may be constructed in the Primary Planning Area at full buildout under the proposed *General Plan*, in addition to 1,949



new dwelling units and 1.01 million square feet in the Secondary Planning Area. Landslides, subsidence, liquefaction, dam inundation hazards and volcanic hazards are all potentially significant impacts, depending upon the likelihood that such events will occur. The assessments of risk related to these hazards in the Butte County *Safety Element* and the Paradise *Multihazard Disaster Plan* are used as impact evaluation criteria.

Impact #3.3-1: Potential to expose people and property to earthquakes.

Conclusion: All new structures must be constructed in compliance with the standards of the UBC and are less likely to suffer structural damage than existing structures built before such regulations were in place. According to the Paradise Multihazard Disaster Plan, while there are no known earthquake faults within the Planning Area, the Planning Area does encompass several active fault zones and is subject to earthquakes of the magnitude of 6.9 on the Richter scale. While the general seismic hazards experienced in the Paradise Planning Area are effectively addressed through the standards of the UBC in terms of structural damage, seismic events can also result in secondary impacts, including fires, disruption of water supply and utilities, and other hazards to which new development would be exposed. General Plan would not, however, increase the hazards to which people and property are exposed. The General Plan does incorporate an implementation measure which will reduce impacts due to seismic activity; not, however, to a level which is less than significant due to the increased exposure of people and property to secondary impacts. This measure is as follows:

Safety Element

SI-8 Enforce and comply with the provisions of the Uniform Building Code and the Uniform Fire Code.



The impact is determined to be potentially significant and unavoidable if the *General Plan* is approved. No additional mitigation measures are available.

Impact #3.3-2: Potential to expose people and property to the effects of liquefaction, landslides and dam inundation hazards. Potential to expose structures, roads and utilities to the effects of subsidence.

Conclusion: According to the Butte County Safety Element, the Paradise Planning Area is rated as having a low landslide potential and is not within an area of potential subsidence. It is in an area with generally low potential for liquefaction. While dam inundation hazards are not addressed in the Safety Element, the two dams within the Planning Area are subject to annual safety inspections and were not identified as hazards in the Multihazard Disaster Plan. Impacts related to liquefaction, landslides, subsidence and dam inundation hazards are determined to be less than significant.

Impact #3.3-3: Potential to expose people and property to the hazards associated with volcanic eruption of Lassen Peak. At a distance of 70 miles, the most likely impact that would be experienced in the Paradise Planning Area is ashfall, which can cause damage to engines, stormwater and sewer systems, and sewage and water treatment plants; loss of visibility and associated impacts (such as vehicle accidents and impeded evacuation); collapse of flat-roofed structures due to weight; and respiratory illnesses.

Conclusion: According to the Multihazard Disaster Plan, though most of the eruptions in the Lassen Peak area have been small, it is believed that it is capable of much larger eruptions. An eruption could be expected within the next 100 years, with the severity unknown. The General Plan would not, however, increase the hazards to which people and property are exposed. The Multihazard Disaster Plan recommends several guidelines for



volcanic eruption planning, and the General Plan proposes to adopt the Multihazard Disaster Plan by reference. The General Plan does incorporate policy statements and implementation measures which will reduce impacts due to volcanic hazards; not, however, to a level that is less than significant. Those policy statements and implementation measures are as follows:

Circulation Element

CTAR Creation of additional connections north to Paradise Pines; west to east to Feather River Hospital; and from west to east in the southern portion of the Town shall be studied.

Safety Element

- 31-6 Educate residents regarding the dangers of seismic activity and wildland fires, and the Town of Paradise Multihazard Disaster Plan.
- NI " Adopt the Town of Paradise Multihazard Disaster Plan by reference in the General Plan.

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No additional mitigation measures are available for Impact #3.3-1. Because no significant impacts have been identified for Impacts #3.3-2 and #3.3-3, no mitigation measures are required.

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Please roter to Section 3.3 of Volume III, Environmental Setting. for a description of the soils of the Paradise Planning Area.

Impact Evaluation Criteria: Soil impacts fall into two general areas of concern:

Impacts related to agricultural productivity of soils



Impacts related to suitability of soils for development and erosion hazards

The significance of impacts on agricultural productivity can be measured by comparison of soil types to the U.S. Soil Conservation Service (SCS) Land Capability Classification System. Conversion of prime soils (Class I and II), those best suited for cultivation, should be considered significant. A MODERN SCS SOIL SURVEY HAS NOT BEEN PREPARED FOR THE PLANNING AREA. Information available from soil surveys of the Valley floor indicate that foothill lands in Butte County are generally of low agricultural capability (Classes VII and VIII). Although soil may not be prime, it may have other unique and beneficial uses.

A soil-vegetation survey prepared in 1980 by the California Department of Forestry did not rate the land for agricultural suitability, but rather for suitability for timber production and extensive range use. The potential for conversion of soils with a medium to high potential for timber production and range use to nonagricultural uses should be considered significant, provided that such soils are found in parcels of sufficient size to make timber production and range use (grazing) commercially viable.

Butte County, which currently has jurisdiction over the Secondary Planning Area, has established a minimum parcel size of 160 acres for grazing land and 160 acres for timber preserve. Where lands are used for grazing and such use and parcel size complies with County zoning, their conversion to other uses or division into smaller parcels should be considered significant.

Impact #3.4-1: The conversion of potentially productive soils for timber production and grazing use to nonagricultural uses.

Conclusion: Of the dominant soil types within the Primary and Secondary Planning Areas, the Aiken soils are rated as medium to very high suitability for timber production and unsuited to medium



suitability for range use; Toomes soils are rated as unsuited for timber production and low suitability for range use; Supan soils are rated as unsuited for timber production and medium suitability for range use; Pentz soils are rated as unsuited for timber production and high suitability for range use; Stover soils are rated as unsuited for timber production and medium suitability for range use; and Guenoc soils are rated as unsuited for timber production and low suitability for range use.

Based on these ratings, new development on Aiken, Supan and Pentz soils which precludes their use for timber production and grazing is potentially significant. Aiken soils, which are the predominant soil type (45%), are primarily found within the town limits (Primary Planning Area) and the portion of the Secondary Planning Area north of the town limits. New development is not proposed within the northerly Secondary Planning Area, and portions of the area are zoned Timber Preserve (TPZ) in Butte County and are proposed to be designated as "Timber Preserve" in the *General Plan*. The likelihood that timber production would be proposed within the town limits is remote, due to the built-up nature of the area and the small existing parcel sizes. Impacts on soils suitable for timber production are therefore determined to be less than significant, and no mitigation measures are required.

Pentz, Supan and Stover soils are the dominant soil types in the southerly Secondary Planning Area and are rated as high, medium and medium suitability, respectively, for grazing use. However, only one parcel within this area is 160 acres in size; all other parcels are less than 160 acres. The 160-acre parcel includes Stover and Pentz soils. This parcel is designated "Open Space/Agricultural" in the proposed *General Plan*. While the *General Plan* provides for the eventual conversion to nonagricultural use of the southerly Secondary Planning Area, no determination has been made as to the ultimate use of that particular 160-acre parcel. Slopes exceed 30 percent on portions of the site, and these areas would not be developed under the proposed *General Plan*. The *General Plan* (*Land Use Element*)



calls for preparation and adoption of a specific plan for the southerly Secondary Planning Area, which would include the assignment of specific land use designations. An environmental impact report will be prepared for the specific plan which will address the proposals and impacts expected to result from that plan.

Policy statements incorporated in the *General Plan* will reduce or delay the eventual conversion of lands to nonagricultural use by assuring that conversion occurs in an orderly and efficient matter and is not premature. These policy statements are as follows:

Land Use Element

- LUP-5 The Town shall prepare a specific plan for the development of the Secondary Planning Area south of the town limits which will more precisely determine residential densities, roads, drainage, utilities and sewage disposal.
- LUP-6 The "Open Space/Agriculture" classification shall be applied to most lands within the southerly Secondary Planning Area as a holding designation to prevent premature conversion to urban uses until such time as a specific plan is adopted and public facilities and services are available.
- LUP-84 Encourage Butte County to maintain the Urban Reserve Policy for the area south of the Town limits and work with Butte County officials to develop an appropriate policy for the area north of Paradise.

Open Space/Conservation/Energy Element

OCEP-43 Significantly important agricultural and timber production lands, particularly those located in the



Secondary and Tertiary Planning Areas, shall be identified and protected from incompatible development.

OCEP-48 Timber production areas within the Planning Area shall be identified on the *Land Use Diagram*.

There are several small orchards remaining within the town limits. These parcels have been designated as "Open Space/Agriculture" or "Agricultural Residential", and the policies and implementation measures of the *General Plan* are designed to encourage their preservation. These policies and measures include the following:

Open Space/Conservation/Energy Element

- OCEP-42 Retention of agricultural lands within the Town limits shall be encouraged while recognizing that changing circumstances may necessitate a change in use for some lands.
- OCEI-24 Acquire conservation easements on important agricultural lands as funds are available to do so.
- OCEI-25 If legally feasible, establish a Williamson Act program and execute Williamson Act contracts with interested property owners.

With the policy statements and implementation measures incorporated in the proposed *General Plan*, the impact on agricultural lands is found to be less than significant for the reasons stated above, and no mitigation measures are required.

Impact #3.4-2: The potential for soil disturbance during and following construction to lead to wind and water erosion and potential stream siltation.



Conclusion: The Planning Area contains excessively sloping land (refer to Figure 3-1, Slope, of Volume III, *Environmental Setting*), and some soils within the Planning Area have high to very high erosion potential and are adjacent to streamcourses (refer to Table 3-4 of Volume III). The potential exists for significant impacts to occur if development and construction were unregulated. However, the policy statements and implementation measures that are incorporated in the proposed *General Plan* and the regulations of the Town Subdivision Ordinance, Zoning Ordinance, Town Improvement Standards and the Uniform Building Code, as amended by the Town, will reduce these potential impacts to a level which is less than significant, and no mitigation measures are required.

The policy statements and ordinances set forth in the Conclusion for Impact #3.2.1-1, including the requirement for grading permits and erosion and sedimentation control plans in situations prescribed by Town ordinance, are also applicable to, and serve to reduce, this impact. In addition to those policies and ordinances, the proposed *General Plan* includes the following policy statements and implementation measures:

Safety Element

SP-17

Development projects shall be designed to minimize soil erosion, and shall be required to comply with all Town of Paradise adopted soil erosion standards maintained by the Town Engineering office.

Open Space/Conservation/Energy Element

OCEP-23 Streamcourses identified and designated as significantly important shall be carefully protected from the impacts of land use development, both within and outside the Town limits.



OCEP-25 Natural riparian vegetation along creeks shall be protected.

OCEP-27 Open space or resource conservation zoning shall be established for sensitive lands such as areas of resource production, steep canyons and stream corridors, and areas of significant natural resource value.

OCEI-1 Identify and map significantly important permanent and intermittent watercourses in the Planning Area on the Land Use Constraints Diagram and develop standards for their protection, including appropriate setbacks.

Because all construction and development must be in compliance with these policies, measures and regulations, this impact is found to be less than significant and no mitigation measures are required.



Mitigation Measures:

Because no significant impacts have been identified, no mitigation measures are required.

3.5 AIR QUALITY

Setting:

Please refer to Sections 4.2 and 16.4 of Volume III, *Environmental Setting*, for a description of air quality in the Paradise Planning Area and the Butte County *Air Quality Attainment Plan*, respectively.

Impacts:

Impact Evaluation Criteria: The federal and State ambient air quality standards provide the basis for evaluating air quality impacts. These standards are shown in Table 3.5-1. Non-attainment of a federal or State emission standard for any pollutant is a significant impact. Because the State standards set forth under the California Clean Air Act of 1988 are more restrictive than federal standards, the State standards will be used for determination of significant impacts. It is unlikely that an individual development project consistent with the *General Plan* would, in itself, exceed a standard. However, almost every project will result in an incremental contribution to a condition in which standards are exceeded, and a significant cumulative impact will result.

Impact #3.5-1: Adoption of the *General Plan* will result in the accommodation of an increased population within the Planning Area over time and at buildout. The increase in population will result in increased vehicle traffic and increased emissions that will contribute to the cumulative regional degradation of air quality in the Paradise Planning Area and the Northern Sacramento Valley Air Basin. Refer to Table 3.1-1 for *General Plan* buildout figures and Table 3.13-3 for traffic generation figures. Based upon these figures, the estimated mobile source emissions which will result from adoption and implementation of the *General Plan* are shown in Table 3.5-2. These estimated emissions were calculated

TABLE 3.5-1

AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGING TIME	CALIPORNIA STANDARDS ¹		NATIONAL STANDARDS ²		
		CONCEN- TRATION ³	METHOD ⁴	PRIMARY 3,5	SECONDARY 3,6	METHOD 4,7
Ozone	1 Hour	0.09 ppm (180 ug/m3)	Ultraviolet Photometry	0.12 ppm (235 ug/m3)	Same as Primary Std.	Ethylene Chemilumi- nescence
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m3)	Non- dispersive Infrared Spectros- copy (NDIR)	9 ppm (10 mg/m3)	-	Non- dispersive Infrared Spectros- copy (NDIR)
	1 Hour	20 ppm (23 mg/m3)		35 ppm (40 ug/m3)		
Nitrogen Dioxide	Annual Average	•	Gas Phase Chemilumi- nescence	0.053 ppm (100 ug/m3)	Same as Primary Std.	Gas Phase Chemilumi- nescence
	1 Hour	0.25 ppm (470 ug/m3)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluro- rescence	80 ug/m3 (0.03 ppm)	-	Parar- osoaniline
	24 Hour	0.05 ppm (131 ug/m3) ⁸		365 ug/m3 (0.14 ppm)	-	
	3 Hour	-		-	1300 ug/m3 (0.5 ppm)	
	1 Hour	0.25 ppm (655 ug/m3)		-	-	
Suspended Particulate Matter (PM ₁₀)	Annual Geometric Mean	30 ug/m3	Size Selective Inlet High Volume	-	-	-
	24 Hour	50 ug/m3	Sampler and Gravimetric Analysis	150 ug/m3		Inertial Separation and Gravimetric
	Annual Arithmetic Mean	-	-	50 ug/m3		Analysis
Suifates	24 Hour	25 ug/m3	Turbi- dimetric Barium Sulfate	-	-	-

POLLUTANT	AVERAGING TIME		ORNIA DARDS ¹	NATIONAL STANDARDS ²			
Lead	30 Day Average	1.5 ug/m3	Atomic Absorption	•	-	Atomic	
	Calendar Quarter	-		1.5 ug/m3	Same as Primary Std.	Absorption	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 ug/m3)	Cadmium Hydroxide STRactan	•	-	-	
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 ug/m3)	Tedlar Bag Collection, Gas Chroma- tography	-	-	-	
Visibility Reducing Particles	1 Observation	In sufficient amount to reduce the prevailing visibility to less than 10 miles when the relative humidity is less than 70%		-	-	-	
	APPLICABLE	ONLY IN TH	ie lake ta	HOE AIR BA	ASIN		
Carbon Monoxide	8 Hour	6 ppm (7 mg/m3)	NDIR	•	-	-	
Visibility Reducing Particles	1 observation	In sufficient reduce the visibility to miles when humidity is le	prevailing less than 30 the relative	-	•	-	

Source: State of California, Air Resources Board, November, 1989.

- 1. California standards for ozone, carbon monoxide, sulfur dioxide (1 hour), nitrogen dioxide and particulate matter PM₁₀, are values that are not to be exceeded. The sulfates, lead, hydrogen sulfide, vinyl chloride, and visibility reducing particles standards are not to be equaled or exceeded.
- 2. National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
- 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based upon a reference temperature of 25° C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25° C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

- 4. Any equivalent procedure which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
- 5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the Environmental Protection Agency.
- 6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.
- 7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8. At locations where the state standards for ozone and/or suspended particulate matter are violated. National standards apply elsewhere.
- 9. Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.



utilizing the URBEMIS #3 computer model developed by the California Air Resources Board.

Conclusion: The mobile source emissions reported in Table 3.5-2 will contribute to local exceedances of State ozone standards, for Development in which Paradise is a nonattainment area. accordance with the General Plan will also contribute to regional emissions of ozone and PM₁₀ which are currently not in compliance with State standards. In order to comply with the requirements of the California Clean Air Act, Butte County must reduce reactive organic gas emissions by 7.58 tons per day by 1994, with further reduction deadlines by 1997 and 2000 (Air Quality Attainment Plan, Northern Sacramento Valley Air Basin, 1991). Therefore, any increase in emissions will have a significant cumulative impact, even with the adoption and implementation of policy statements and implementation measures incorporated in the proposed General Plan. Additional mitigation measures are recommended, but will not reduce impacts to a level which is less than significant.

Policy statements and implementation measures incorporated in the *General Plan* which will reduce impacts on air quality include the following:

Circulation Element

- CP-11 Establishment of a park-and-ride facility at the upper end of Paradise shall be pursued in order to reduce trips passing through Paradise on Skyway.
- CP-13 The feasibility of a bicycle path and hiking system and a network of trails shall be explored, with access to schools, creeks, commercial and residential areas, parks, along canyons, and extending from Stirling City to Chico.

TABLE 3.5-2 ESTIMATED INCREMENTAL MOBILE SOURCE EMISSIONS ATTRIBUTABLE TO GENERAL PLAN BUILDOUT (LBS/DAY)

Emissions Source		Organic Gases		Carbon Monoxide	Nitrogen Oxides
Vehicle Trips		805.0		7809.9	1672.6
		PM ₁₀		Sulfur Oxides	
		171.1		200.8	
Assumptions	•				
		Residential	ntial Commerc		
	Home- Work	Home-Shop	Home- Other	Work	Non- Work
Trip Length	10.9	8.0	9.3	10.6	9.0
% Started Cold	88.6	40.4	58.8	77.8	27.6
Trip Speed	35	35	35	35	35
Percent Trip	27.3	21.2	51.5		
		Vehicle I	Fleetmix		
Vehicle Type		Percent Type	Leaded	Unleaded	Diesel
Light Duty Autos		72.8	0.0	97.5	2.5
Light Duty Trucks		14.3	0.0	97.4	2.6
Medium Duty Trucks		4.3	0.0	100.0	0.0
Heavy Duty Trucks		3.9	11.4	88.6	N/A
Heavy Duty Trucks		3.9	N/A	N/A	100.0
Motorcycles		0.9	100.0	N/A	N/A



- CP-15 The Town shall consider the needs of bicyclists and pedestrians when approving new development.
- CP-17 Explore the feasibility of establishing a trail system in the Secondary Planning Area. [Sphere of Influence].
- CP-20 Automobile dependency within Paradise shall be reduced for local residents and visitors by implementing congestion management and trip reduction plan programs that decrease the number of vehicle miles travelled which, in turn, reduces air pollution and congestion and saves energy.
- CP-21 As staff and funding become available, expanded transit services for seniors and the handicapped shall be promoted in accordance with the results of future studies.
- CP-23 Expansion of public transportation services within Paradise and between Paradise and major employment centers shall be supported by BCAG actions.
- CI-11 Coordinate with Butte County in the maintenance of a regional traffic model and region-wide congestion management program (as defined by AB 171, 1989).
- CI-13 Require new development to provide a pedestrian pathway on at least one side of new public streets and new private roads (if feasible).
- CI-16 Require transportation facilities such as bus stops to be incorporated into major new developments.



CI-17 Utilize transportation funds for selected alternative transportation facilities and/or programs.

Open Space/Conservation/Energy Element

OCEI-14 Adopt by reference the Butte County Air Quality Attainment Plan.

OCEI-15 Eliminate leaf burning and provide alternatives for disposing of yard debris.

OCEI-31 Future planning decisions shall assist in maintenance and improvement of air quality in the Paradise region.

Impact #3.5-2: Construction activities within the Planning Area will contribute to air pollution emissions from heavy construction equipment and from the generation of dust from grading activities.

Conclusion: Even though short-term or temporary in nature, an increase in pollutant emissions is a significant impact in an area which exceeds the State standards for ozone and particulate matter. Impacts of dust generated will be reduced to a level which is less than significant by practices already implemented by the Town of Paradise. These practices include the application of best management practices, including watering to control dust during construction or use of other acceptable dust palliatives, and the grading permit procedures and requirements and road construction requirements described in Sections 3.2 and 3.4 above. Regulation of emissions from construction equipment is outside the jurisdiction of the Town of Paradise, and such emissions cannot be mitigated.

Impact #3.5-3: The development of new businesses or industries which increase stationary source emissions.



Conclusion: All new businesses and industries which produce stationary source emissions must receive an air quality permit from the Butte County Air Pollution Control District. All permits issued must be in compliance with the Air Quality Attainment Plan, State and local standards and regulations, including consideration of cumulative regional emissions. Because all new businesses and industries must meet these requirements, it is determined that this impact will be less than significant, and no mitigation measures are required.

Mitigation Measures:

Mitigation Measure #3.5-1. The Butte County Air Pollution Control District (APCD) has recommended installation and maintenance of an air monitoring station in the Paradise area to monitor ozone, carbon monoxide and particulate matter. Applies to Impact #3.5-1.

Effectiveness of Measure: Air quality monitoring will assist the Butte County APCD and the Town in determining compliance with State and federal standards and the *Air Quality Attainment Plan*, but will not reduce air quality impacts.

Implementation/Monitoring: The Butte County APCD will be responsible for installing and maintaining the monitoring station. Public Resources Code Section 21081.6 provides that where the approving agency has received mitigation suggestions from an agency having jurisdiction by law over natural resources affected by a project, the latter agency must prepare and submit a reporting or monitoring program applicable to the proposed mitigation measure, if so requested by the approving agency. The Town of Paradise intends to submit such a request to the APCD.

3.6 HYDROLOGY

Setting:

Please refer to Section 5.0 of Volume III, *Environmental Setting*, for a description of surface hydrology, water quality, and Town



and district responsibilities, and Section 14.8 for a description of water service for the Paradise Planning Area.

Impacts:

Impact Evaluation Criteria for Flooding: The Planning Area includes several drainage basins and is traversed by several streamcourses which extend beyond the boundaries of the Planning Area. Flooding impacts relate to the potential to expose existing and future Planning Area residents to flooding, and the potential to cause additional flooding to occur on downstream properties as a result of Planning Area development in accordance with the proposed *General Plan*. If either circumstance exists, the impact is potentially significant. The Federal Emergency Management Agency (FEMA) has developed maps on a nationwide basis which identify flood hazard zones. Development within a FEMA-defined flood hazard zone should be considered a potentially significant impact.

Impact #3.6-1: Potential exposure of people and property to flooding onsite and offsite, and increased runoff due to construction which results in an increase in impervious surfaces.

Conclusion: All available sources of flooding information for the Paradise Planning Area conclude that the area is not subject to flooding from outside sources and that, because of the nature of the topography and the drainage basins in the Paradise Planning Area, any flooding that occurs is localized in nature, resulting from a temporary lack of capacity or blockage of a drainage basin. As described in Section 5.1 of Volume III, Environmental Setting, while the soils and subsoils of the Paradise area do not markedly aggravate the runoff situation, they also do not prove to be highly permeable. This often results in localized flooding which can be exacerbated by such land use activities as grading operations, vegetation clearance, inattention to storm runoff from construction sites during the peak winter rainfall period, large-scale paving and the lack of a collection system for most storm waters. None of the Paradise Planning Area is within a flood hazard zoned defined and mapped by FEMA.



The potential exists for significant temporary impacts to occur if development and construction were unregulated. However, the proposed *General Plan* incorporates policy statements and implementation measures which are designed to reduce impacts related to flooding and drainage. These policies and measures are as follows:

Safety Element

- SP-9 The Town shall assure that increased runoff resulting from additional coverage of surface area on developing properties does not adversely affect surrounding properties, roads or stream courses.
- SP-10 Natural drainageways shall be preserved.
- SP-11 The Town shall assure that no new structures are located within potential floodways.
- SP-12 Development shall not be permitted if identified or potential flooding and drainage impacts cannot be overcome by sound engineering practices.
- SP-13 All new development must comply with the procedures and regulations of the *Master Storm Drain Study and Facilities Plan*.
- SI-12 Constantly re-evaluate and continue to implement the *Master Storm Drain Study and Facilities Plan*.

The proposed *General Plan* also incorporates special permit zones identified in the *Master Storm Drain Study and Facilities Plan* on the *Land Use Constraints Diagram*, thus limiting development within these areas.

In addition to the policy statements and implementation measures listed above, the Town Subdivision Ordinance requires that storm



water runoff from new subdivisions shall be collected and conveyed in a manner consistent with the *Master Storm Drainage Study and Facilities Plan*, and with the requirements of the Town Engineer. The Town Zoning Ordinance also establishes coverage limitations on new development.

The policy statements and implementation measures that are incorporated in the proposed *General Plan* and the regulations of the Subdivision and Zoning Ordinances will reduce these potential impacts to a level which is less than significant, because all new construction and development must be in compliance with these policies and regulations; therefore, no mitigation measures are required.

Impact Evaluation Criteria, Water Quality: Water quality impacts can be associated with both surface and groundwater. If surface water courses and adjacent areas are disturbed, or if runoff contaminates the watershed or surface water courses, the impact should be viewed as potentially significant. The National Pollutant Discharge Elimination Standards (NPDES) established by the Environmental Protection Agency provide standards for stormwater discharge quality.

Groundwater impacts can be measured by the potential to encounter unsafe domestic water supplies, or for the Plan itself to adversely affect groundwater quality. If there are reports of unsafe groundwater in the Planning Area, or if Plan characteristics could potentially contribute to groundwater contamination, the impact should be viewed as significant.

Finally, State and federal drinking water standards have been established for public and private water systems, and compliance with these standards can be used to determine whether impacts are significant.

Impact #3.6-2: Degradation of surface water quality and contamination of the watershed. The impact of development and



construction in accordance with the General Plan on surface water quality may consist of erosion and silt carriage and deposition due to grading for roads and building pads. Increased motor vehicle residues and landscaping fertilizer and spraying residues will be washed into the watercourses draining the Planning Area during periods of runoff. Development which directly impacts streamcourses or occurs in proximity to streamcourses could exacerbate this impact.

Conclusion: Impacts related to erosion and silt carriage and deposition were addressed in Sections 3.2 and 3.4 and determined to be less than significant. Impacts on water quality due to runoff from new development are potentially significant if development were unregulated. However, the policy statements and implementation measures that are incorporated in the proposed *General Plan* and recommended mitigation measures will reduce these potential impacts to a level which is less than significant.

The proposed policy statements and implementation measures which will reduce impacts on water quality, disturbance of streamcourses and contamination of the watershed are as follows:

Open Space/Conservation/Energy Element

- OCEP-22 Surface and groundwater quality shall be improved and preserved and the Paradise area watershed shall be protected.
- OCEP-23 Streamcourses identified and designated as significantly important shall be carefully protected from the impacts of land use development, both within and outside the Town limits.
- OCEP-24 The Town shall strive to influence activities within its watershed and outside the Town limits in order to protect and preserve the Town's water resources.



OCEP-25 Natural riparian vegetation along creeks shall be protected.

OCEP-27 Open space or resource conservation zoning shall be established for sensitive lands such as areas of resource production, steep canyons and stream corridors, and areas of significant natural resource value.

OCEP-38 The Town shall initiate annexation of the area between Neal Road and Butte College for future utilization as open space in conjunction with a future wastewater treatment plant, possible stormwater discharge areas and park lands.

OCEI-1 Identify and map significantly important permanent and intermittent watercourses in the Planning Area on the Land Use Constraints Diagram and develop standards for their protection, including appropriate setbacks.

OCEI-4 Prevent unauthorized discharges into creeks and enforce regulations regarding such discharges.

OCEI-5 Study and encourage annexation of areas within Magalia and Paradise Pines to provide greater control over development and activity affecting the Paradise watershed.

Safety Element

SP-16 Detrimental and toxic discharge into natural waterways shall not be permitted.

Impact #3.6-3: Degradation of groundwater quality. Increased development in accordance with the proposed *General Plan* will result in the installation of additional septic systems and contribute



to cumulative impacts of septic system failures on groundwater quality. Although a sewer system is planned, it will be several years before construction is completed, and only portions of the Planning Area will be sewered within the planning period (15 years). Annexation of all or portions of the northerly Secondary Planning Area may eventually require the Town to provide sewer service to this area.

Conclusion: Any groundwater contamination which currently exists is the result of existing septic system failures and other existing sources of contamination. The potential exists for significant impacts to occur resulting from new development on septic systems, if development were unregulated. However, in addition to formation of a wastewater design assessment district preliminary to construction of a wastewater collection, treatment and disposal facility, the Town is in the process of forming an onsite wastewater management district to monitor and care for existing and future septic systems. Maintenance of on-site septic systems will become a Town function. It is also anticipated that common leachfields will be constructed in some instances, with the Town maintaining the common areas. The on-site district will contain three or more zones, ranging from a zone requiring only simple on-site suitability determinations, to areas with high flow and/or marginal on-site suitability determinations. The latter areas may require community leach fields or other unique solutions. Developed areas annexed to the Town would most likely be included in one of the above-described zones.

The Town Subdivision Ordinance currently requires all new lots to meet the requirements of the Butte County Environmental Health Department regarding sewage disposal.

Formation and operation of the on-site wastewater management district, in conjunction with policy statements and implementation measures that are incorporated in the proposed *General Plan* and requirements of the Town Subdivision Ordinance, will reduce these potential impacts to a level which is less than significant, and no



mitigation measures are required. The annexation of developed areas, and provision of sewer service or inclusion in the onsite wastewater management district, would represent a beneficial impact on water quality. The proposed policy statements and implementation measures which are incorporated in the *General Plan* which will reduce impacts on groundwater quality, in addition to those included in the Conclusion to Impact #3.6-2 above, are as follows:

Land Use Element

LUP-15,	Land use densities shall be based, in part, on the
LUP-60	availability of sewage disposal services.

- LUP-16 The Town shall attempt to implement all feasible steps to assure that sewer service is made available to the commercial area of the Town as expeditiously as possible.
- LUI-7 Identify subareas, pipeline routes and priorities for the sewer system and complete construction of a sewer system to serve the central area of Paradise.
- LUI-8 Establish an on-site wastewater management district for the remainder of the Town.
- LUP-57 In unsewered areas of the Town, densities shall be consistent with standards for on-site wastewater disposal and shall provide for minimum lot sizes of up to one-half gross acre in new developments.

Open Space/Conservation/Energy Element

OCEI-40 Establish a time frame for implementing and enforcing the provisions of an on-site wastewater management district.



Impact #3.6-4: Potential to encounter unsafe drinking water. The predominant source of domestic water provided within the Planning Area is surface water supplies; however, development of a groundwater source is contemplated. In addition, it is estimated that there are approximately 300 privately-owned, relatively shallow wells in Paradise, some of which supply water for domestic use. According to Section 5.2 of Volume III, Environmental Setting, the upper portions of the Tuscan Formation may hold unconfined water which receives recharge from the Paradise area and could be subject to contamination by septic systems. However, septic tank/leach line failures in Paradise do not affect water supplies distributed by the Paradise Irrigation District, since its sources are outside the urbanized area.

Conclusion: As a practical matter, all new development within the Town is serviced by a community water system. The Paradise Irrigation District is the major supplier, serving 95 percent of the incorporated town; the Paradise Pines area is served by the Del Oro Water Company (refer to Figure 14-3 of Volume III, Environmental Setting). Public and private water systems, but not individual wells, are required to comply with State drinking water standards. The Paradise Irrigation District is planning to add, by June 1993, filtration capacity to enable the District to meet revised Federal and State water quality standards. The capacity will be increased from 6 to 25 million gallons per day (mgd). Because all new development on a community water system must be in compliance with State and federal standards, this impact is determined to be less than significant. Potential impacts of new development on water quality of existing wells is determined to be less than significant because the construction of the sewer system and the formation of the on-site wastewater management district will prevent new sources of groundwater contamination from being developed.

Mitigation Measures:

Mitigation Measure #3.6-1: Compliance of the Paradise stormwater collection and disposal system with NPDES standards



when applicable to the Town of Paradise, including basins and devices to prevent pollutants from entering streamcourses. The Department of Fish and Game has recommended that stormwater treatment facilities have the ability to remove soluble, suspended and surface floating pollutants in addition to sediments. Applies to Impact #3.6-2.

Effectiveness of Measure: Compliance with NPDES standards has been determined by the Environmental Protection Agency to assure water quality is not degraded.

Implementation/Monitoring: Monitoring of water quality discharge standards will be carried out by the Town Engineering Office and the Butte County Environmental Health Department. In addition, the Department of Fish and Game has recommended that the mitigation monitoring program for this measure include the following:

- Specific criteria to measure effectiveness of mitigation. However, Section 21081.6 of the Public Resources Code does not require mitigation monitoring programs to measure the effectiveness of mitigation measures.
- Annual monitoring for a minimum of five years. Annual written reports submitted to the lead agency and the Department of Fish and Game.
- Annual monitoring reports, each of which include corrective recommendations that shall be implemented in order to ensure that mitigation efforts are successful.

3.7 VEGETATION AND WILDLIFE

Setting:

Please refer to Section 6.0 of Volume III, *Environmental Setting*, for a description of vegetation and wildlife in the Paradise Planning Area.



Impacts:

Impact Evaluation Criteria: At the State level, the Department of Fish and Game is responsible for implementing the California Fish and Game Code and the California Native Plant Protection Act, which include protection for rare and endangered species. The Department also has a policy protecting wetlands, which are defined in similar terms as those used by the U.S. Army Corps of Engineers. The State, like the federal government, supports the policy of "no net loss" of wetlands. The first statement in that policy reads:

1. California's remaining wetlands provide significant and essential habitat for a wide variety of important resident and migratory fish and wildlife species.

Finally, the Department manages an information program called the California Natural Diversity Data Base which records sightings of rare, threatened, endangered and otherwise sensitive species, as well as occurrences of natural communities. The Data Base considers natural communities as species equivalents in rating their status (i.e. rare, endangered, etc.). The basis for this practice is that natural communities have value in and of themselves, and that they may harbor sensitive species which have not yet been identified and which might not be identified and protected before they are eliminated. The Natural Diversity Data Base and other sources were consulted in the preparation of Section 6.0 of Volume III, *Environmental Setting*.

The *State CEQA Guidelines* state that a project may have a significant effect on the environment when any of a number of conditions occur including the following related to biological resources:

(a) The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number



or restrict the range of a rare or endangered plant or animal...(Section 15065)

Additionally, Appendix G of the *CEQA Guidelines* states that a project will normally have a significant effect on the environment if it will, among other things:

- Conflict with adopted environmental plans and goals of the community where it is located.
- Substantially affect a rare or endangered species of animal or plant or the habitat of the species.
- Interfere substantially with the movement of any resident or migratory fish or wildlife species.

At the federal level, both the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service are responsible for enforcing federal legislation, most notably the Endangered Species Act and the Federal Clean Water Act. A key issue with both agencies is wetlands protection. The federal administration has adopted a policy of "no net loss" of wetlands.

Impact #3.7-1: Loss of vernal pools, freshwater marsh, and riparian wetlands. Freshwater marsh and seeps, riparian areas, and possibly vernal pools are present within the Planning Area. It is possible that there are wetlands resources within the Planning Area that could be classified as jurisdictional wetlands. Development in accordance with the *General Plan* will potentially result in the elimination and/or alteration of wetlands. The loss of wetlands would eliminate habitat critical to the continued existence of plants and wildlife dependent on this resource.

Conclusion: Unregulated development and construction in the Planning Area have the potential to result in the elimination and/or alteration of wetland areas. Because wetlands may provide habitat for species of special concern, this elimination or alteration would



constitute a reduction in the habitat of these wildlife species. The threat of elimination of sensitive plant communities dependent upon a wetland environment, such as vernal pools, would also be significant. However, the policy statements and implementation measures that are incorporated in the proposed *General Plan* and recommended mitigation measures will reduce these potential impacts to a level which is less than significant.

The proposed General Plan does not propose development in the Tertiary Planning Area (most likely location for vernal pools) or additional development in the northerly Secondary Planning Area. Most of the southerly Secondary Planning Area is proposed to be designated "Open Space/Agriculture", and development is not proposed until a specific plan is adopted for the area, at which time environmental impacts must be addressed. All development which is proposed must comply with the policies of the General Plan. The proposed policy statements and implementation measures which will reduce impacts on wetlands are as follows:

Open Space/Conservation/Energy Element

- OCEP-4 Existing, significantly important natural habitat areas having high value for birds and other wildlife shall be preserved for future generations through careful land use planning and public participation.
- OCEP-23 Streamcourses identified and designated as significantly important shall be carefully protected from the impacts of land use development, both within and outside the Town limits.
- OCEP-25 Natural riparian vegetation along creeks shall be protected.
- OCEP-27 Open space or resource conservation zoning shall be established for sensitive lands such as areas of resource production, steep canyons and stream



corridors, and areas of significant natural resource value.

OCEI-1 Identify and map significantly important permanent and intermittent watercourses in the Planning Area on the Land Use Constraints Diagram and develop standards for their protection, including appropriate setbacks.

OCEI-3 Establish open space, resource conservation, or low density rural residential zoning on sensitive lands, such as areas of resource production, stream corridors and slopes greater than 30 percent.

OCEI-10 Require significantly important natural areas with high wildlife value to be set aside and preserved during land use development.

Impact #3.7-2: Impact to wildlife resources, including deer winter range, and animal species of special concern, including the endangered bald eagle, due to the loss of habitat and/or foraging areas as development occurs in accordance with the proposed General Plan. The Planning Area contains habitat which may support species of special concern, as described in Section 6.0 of Volume III, Environmental Setting. The vegetation communities within the Planning Area provide suitable habitat and foraging areas for numerous species of wildlife described in Volume III. According to the Department of Fish and Game, bald eagles winter around streams and reservoirs within the Planning Area, and it is probable that eastern portions of the Planning Area fall within the foraging territory of a nearby eagle breeding territory.

Conclusion: Additional development within the Planning Area will, over time, result in diminished wildlife habitat. Because the Planning Area may provide habitat for species of special concern, the reduction of this habitat is considered a potentially significant unavoidable impact. The northerly Secondary Planning Area,



which encompasses the reservoirs, is not proposed for any additional development in the *General Plan*. Policy statements and implementation measures incorporated in the proposed *General Plan*, the Town Tree Ordinance and mitigation measures will reduce this impact; not, however, to a level which is less than significant. The Town of Paradise is forested, and the proposed *General Plan* emphasizes preservation of existing trees and reforestation. Policy statements and implementation measures incorporated in the *General Plan* that will reduce impacts on habitat for wildlife resources and potential impacts on deer herds and species of special concern (in addition to those listed in the Conclusion for Impact #3.7-1 above) are as follows:

Open Space/Conservation/Energy Element

- OCEP-1 Existing large heritage trees and oak woodlands shall be identified, protected, preserved and enhanced. Trees so identified shall only be removed as a last resort.
- OCEP-2 Reforestation and maintenance of trees shall be encouraged along road corridors.
- OCEP-3 Trees that are no longer living, and which do not pose a significant danger, shall also be given consideration for preservation if they possess significant wildlife habitat value.
- OCEP-6 Where feasible, limit new development within the Secondary Planning Area to Designated Development Zones as established by the Department of Fish and Game to protect deer herd migration routes.
- OCEP-7 Deer movement shall be considered when approving fencing and other improvements in new development.



OCEI-6 Create a Town arborist or tree specialist position at Town Hall to provide information and education concerning trees to Town residents.

OCEI-8 Amend the tree ordinance to assure that its administration and enforcement will sustain and enhance the present forested setting of Paradise, and to assure that trees are only removed as a last resort. Establish a mitigation program for tree removal.

OCEI-11 Incorporate deer herd migration routes (windows) into the Land Use Constraints Diagram.

Impact #3.7-3: Potential loss of sensitive plant populations, including oak woodlands. The type of vegetation communities which exist within the Paradise Planning Area provide habitat for several sensitive plant populations, as described in Section 6.0 of Volume III, *Environmental Setting*.

Conclusion: Areas designated for future development may contain sensitive plant populations. The loss of habitat for sensitive plant communities is a potentially significant impact. This impact can be reduced by mitigation measures, policy statements and implementation measures incorporated in the proposed *General Plan* to a level which is less than significant. The policy statements and implementation measures that will reduce impacts on sensitive plant species are listed in the Conclusions for Impacts #3.7-1 and #3.7-2 above.

Impact #3.7-4: Potential impacts on fisheries in Butte Creek and the Feather River due to erosion, sedimentation, siltation, streambed alteration and removal of riparian vegetation.

Conclusion: Potential impacts of erosion, sedimentation and siltation were addressed in Sections 3.2 and 3.4 above. The proposed *General Plan* does not propose development in the



canyons of the West Branch Feather River, but rather contains several policy statements and implementation measures designed to assure their protection. It was determined that these impacts will be less than significant due to proposed policy statements and implementation measures incorporated in the *General Plan* and existing Town ordinances, standards and regulations. Potential streambed alteration impacts are mitigated to a level which is less than significant by Mitigation Measure #3.7-2. Policy statements and implementation measures incorporated in the proposed *General Plan*, and listed in the Conclusion for Impact #3.7-1 and 3.7-2 above, as well as the following policy statement will reduce potential impacts of removal of riparian vegetation to a level which is less than significant, and no further mitigation measures are required.

Open Space/Conservation/Energy Element

OCEP-5 Area fisheries shall be protected, and the cooperation of responsible agencies shall be sought to assure minimum streamflow and restore fisheries.

Mitigation Measures:

Mitigation Measure #3.7-1: Application for and receipt of Section 404 permits pursuant to the Federal Clean Water Act for individual projects and public works projects that involve alteration of wetlands that cannot be avoided through project design or development in an alternative location. This process would include formal wetlands delineations of impacted areas and appropriate onsite or offsite compensation for wetlands that cannot be avoided, which may include enhancement of wetlands habitat. Applies to Impacts #3.7-1, 3.7-2 and 3.7-3.

Effectiveness of Measure: This measure will not avoid potential impacts, but does provide a formal mechanism for mitigating impacts through an established permitting procedure.



Implementation/Monitoring: Section 404 permits shall be applied for and received from the U.S. Army Corps of Engineers as a condition of approval of applicable private development projects and public works projects. Monitoring programs for wetlands enhancement or creation must be formulated once the nature of the actual compensation is determined.

Mitigation Measure #3.7-2: Application for and receipt of a Streambed Alteration Permit from the Department of Fish and Game for private projects and public works projects prior to any modification of streambeds or additional stream crossings. Applies to Impacts #3.7-1 and #3.7-2.

Effectiveness: By regulating streambed alterations, disturbance of streambed environments will be minimized, reducing impacts to fisheries and riparian habitat.

Implementation/Monitoring: Streambed alteration permits are issued by the Department of Fish and Game upon application by project proponents. Application will be made a condition of approval of applicable projects by the Town. Monitoring will be carried out by the Town Engineering Office during inspection of project improvements and by the Department of Fish and Game following issuance of a Streambed Alteration Permit.

Mitigation Measure #3.7-3: The Department of Fish and Game has recommended that setbacks and drainage restrictions be applied to impacts on streams, lakes and wetlands. Applies to Impact #3.7-1.

Effectiveness of Measure: The Department of Fish and Game has determined such measures to be effective.

Implementation/Monitoring: The Department of Fish and Game has recommended that the mitigation monitoring program for this measure include the following:



- Specific criteria to measure effectiveness of mitigation. However, Section 21081.6 of the Public Resources Code does not require mitigation monitoring programs to measure the effectiveness of mitigation measures.
- Annual monitoring for a minimum of five years. Annual written reports submitted to the lead agency and the Department of Fish and Game.
- Annual monitoring reports, each of which include corrective recommendations that shall be implemented in order to ensure that mitigation efforts are successful.

Mitigation Measure #3.7-4: Upon recommendation by the Department of Fish and Game, biotic surveys, floristic studies for plant species of special concern and/or tree inventories of previously undeveloped sites proposed to be developed or otherwise disturbed shall be conducted by qualified biologists during proper phenological periods or seasonal parameters. If species of special concern are found, measures, including setbacks and drainage restrictions, shall be taken to ensure their continued survival in conformance with State and federal law, including setbacks, open space designations and drainage restrictions. Applies to Impacts #3.7-2 and #3.7-3.

Effectiveness: Conducting such studies when necessary will ensure the identification of species of special concern and sensitive habitat so that projects can be redesigned, if necessary, to avoid significant impacts.

Implementation/Monitoring: Study results shall be submitted to the Department of Fish and Game for their review. The Community Development Department will be responsible for assuring that studies are completed and submitted, and that mitigation measures and conditions of approval are complied with.

3.8 NOISE



Setting:

Please refer to Section 7.0 of Volume III, *Environmental Setting*, for a description of the noise environment of the Paradise Planning Area.

Impacts:

Impact Evaluation Criteria: Noise impacts of the General Plan are evaluated by comparison of projected future noise levels to accepted noise standards. The Noise Element of the proposed General Plan establishes land use compatibility guidelines for various types of new development which may be proposed, ranging from 60 dB L_{dn} as acceptable, but up to 70 dB L_{dn} with inclusion of protective measures. The Noise Element also establishes performance standards for new projects affected by or including non-transportation sources and the maximum allowable noise exposure to transportation noise sources. Please refer to Figure 6.4-1 and Tables 6.4-1 and 6.4-2 of Volume I, *Policy Document*. These standards are widely applied in similar jurisdictions throughout the State. The intent of these standards is to provide suitable environment for outdoor activities, indoor communications and sleep.

Impact #3.8-1: Increased and continuing noise from major roadways. Traffic noise impacts are expected to occur at noise sensitive land uses where existing or future exterior traffic noise levels exceed 60 dB L_{dn} . The Federal Highway Administration (FHWA) model was used with future traffic data (Table 3.13-3) to predict future traffic noise levels for development in accordance with the *General Plan*. Table 3.8-1 shows the predicted distances to future 60 and 65dB L_{dn} noise contours for major roadways. Figure 2-3, the *Land Use Constraints Diagram*, in Volume I, *Policy Document*, shows the contours in map form.

Conclusion: Impacts of development in accordance with the objectives and policy statements incorporated in the *Noise Element* will be less than significant because compliance with these objectives and policies will avoid potentially significant impacts. These objectives and policy statements are as follows:



- NO-3 New development of noise-sensitive land uses will not be permitted in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels specified in Table 6.4-2.
- NO-4 Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 6.4-2 at outdoor activity areas or interior spaces of existing noise-sensitive land uses in either the incorporated or unincorporated areas.
- NP-2 The feasibility of proposed projects with respect to existing and future transportation noise levels shall be evaluated by comparison to Figure 6.4-1, *Land Use Compatibility Guidelines*.
- NP-3 Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 6.4-2 or the performance standards of Table 6.4-1, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
- NP-8 The Town shall endeavor to preserve quiet residential areas by limiting traffic and noise-generating uses in such areas.
- NP-9 Appropriate standards shall be established and enforced which control obtrusive noise in residential areas, including vehicle noise.
- NP-10 The Town shall continue to designate and regulate truck routes in order to protect residential areas from unwanted noise and traffic.

TABLE 3.8-1

FUTURE NOISE CONTOUR DATA DISTANCE (FEET) FROM CENTER OF ROADWAY TO $L_{\mbox{\tiny dn}}$ CONTOURS

		Distance to Contour		
Segment	Description	60 dB	65 dB	
SR 191/C	lark Road:			
1	South City Limits to Buschmann Rd.	248	115	
2	Buschmann Rd. to Pearson Rd.	200	93	
3	Pearson Rd. to Bille Rd.	175	81	
4	Bille Rd. to Skyway	163	76	
Skyway:				
5	West City Limits to Pearson Rd.	243	113	
6	Pearson Rd. to Elliot Rd.	211	98	
7	Elliot Rd. to Oliver Rd.	227	105	
8	Oliver Rd. to Maxwell	215	100	
9	Maxwell to Bille Rd.	204	95	
10	Bille Rd. to Wagstaff Rd.	172	80	
11	Wagstaff Rd. to Clark Rd.	140	65	
12	Clark Rd. to Pentz Rd.	157	73	
Pentz Roa	nd:			
13	South City Limits to Pearson Rd.	81	38	
14	Pearson Rd. to Bille Rd.	85	39	
15	Bille Rd. to Wagstaff Rd.	71	33	
16	Wagstaff Rd. Skyway	71	33	

TABLE 3.8-1

FUTURE NOISE CONTOUR DATA DISTANCE (FEET) FROM CENTER OF ROADWAY TO $L_{\rm dn}$ CONTOURS

		Distance to	Distance to Contour			
Segment	Description	60 dB	65 dB			
17	Skyway to Clark Rd.	156	72			
18	Clark Rd. to Pentz Rd.	116	54			
Elliott Roa	Elliott Road:					
19	Skyway to Clark Rd.	128	59			
20	Clark Rd. to Sawmill Rd.	83	39			
21	Sawmill Rd. Pentz Rd.	47	22			
Bille Road:						
22	Oliver Rd. to Skyway	111	51			
23	Skyway to Clark Rd.	87	41			
24	Clark Rd. to Sawmill Rd.	87	41			
25	Sawmill Rd. to Pentz Rd.	73	34			
Wagstaff R	oad:					
26	Oliver Rd. to Skyway	88	41			
27	Skyway to Clark Rd.	88	41			
28	Clark Rd. to Pentz Rd.	78	36			

Source: Brown-Buntin Associates, 1992.



Impact #3.8-2: Increased noise or creation of new sources of noise from new fixed noise sources such as the expansion of existing and development of new industrial uses. A quantitative analysis of future noise levels generated by fixed noise sources is too speculative to produce, as the actual types of future fixed noise sources are not known at the time of *General Plan* approval. However, the potential for the introduction of new fixed noise sources increases with the amount of land designated for industrial use. The proposed *General Plan* designates 212 acres for Light Industrial and 280 acres for Business Park use, in comparison to approximately 30 acres of existing industrial uses within both the Primary and Secondary Planning Areas.

Conclusion: The potential for introduction of new fixed noise sources, and potentially significant noise impacts, increases with the amount of land designated for industrial uses in the *General Plan*. While these impacts are potentially significant, objectives and policy statements incorporated in the *Noise Element* will avoid potentially significant impacts. These objectives and policy statements are as follows:

- NO-1 New development of noise-sensitive uses shall not be allowed where the noise level due to non-transportation noise sources will exceed the noise level standards of Table 6.4-1, as measured immediately within the property line of the new development, unless effective noise mitigation measures have been incorporated into the development design to achieve the standards specified in Table 6.4-1.
- NO-2 Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6.4-1 as measured immediately within the property line of lands designated for noise-sensitive uses. This objective does not apply to noise sources associated with



agricultural operations on lands zoned for agricultural uses.

NP-1 Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 6.4-1 at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

NP-3 Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 6.4-2 or the performance standards of Table 6.4-1, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

Impact #3.8-3: Increased noise due to increased operations at the Paradise Skypark Airport. Operations are expected to increase within the planning period. The 1988 California Aviation System Plan (CASP) estimates that the number of annual operations will increase from the existing 10,000 to 11,676 annual operations in the year 2005. Based upon the projected increase in annual operations, the CNEL values are expected to increase by less than one dB.

Conclusion: An increase of less than one dB over the planning period should not be viewed as significant. In addition, policy statements incorporated in the proposed *Noise Element* will avoid potentially significant impacts. These policy statements are as follows:

NP-6 New land uses within the projected 55 L_{dn} contour of Paradise Skypark Airport shall be compatible with aircraft-generated noise. Single family



residential and institutional land uses such as schools, hospitals, convalescent homes, and other inpatient health care facilities shall not be permitted.

NP-7

Multi-family residential land uses may be permitted within the 55 L_{dn} contour of the Airport subject to an acoustical analysis showing that all structures have been designed to limit interior noise level in any habitable room to 45 dB L_{dn} within the boundaries of the 55 L_{dn} contour as projected in the *Paradise Skypark Airport Land Use Plan*. Compliance with the acoustical analysis requirement shall be as specified in Table 6.4-3.

Mitigation Measures:

Because no significant impacts have been identified, no mitigation measures are required.

3.9 LIGHT AND GLARE

Setting:

Please refer to Section 8.0 of Volume III, *Environmental Setting*, for a description of light and glare in the Paradise Planning Area.

Impacts:

Impact Evaluation Criteria: The impact of new sources of light and glare is potentially significant if the following criteria are met:

- (1) The light and/or glare is continuous, rather than temporary in nature (example: a continuous stream of cars or regular pattern of lighting vs. occasional passing headlights).
- (2) The level of light and/or glare is noticeably higher than the surrounding ambient level of light;
- (3) The light and/or glare has the potential to shine directly into the interior and/or outdoor activity areas of existing or future residences; and



(4) The size of the affected parcels (larger parcels offer greater flexibility for siting of residences).

Impact #3.9-1: New sources of light and glare in previously undeveloped areas. This impact consists of interior and exterior residential lighting, headlights from automobiles and glare from additional paved surfaces and roofs.

Conclusion: New development in accordance with the proposed General Plan in previously undeveloped areas will create new sources of light and glare, including lighting of commercial and industrial areas, new residences, and schools. These impacts are potentially significant, but will be reduced to a level that is less than significant by policy statements and implementation measures incorporated in the proposed General Plan, proposed Plan densities and separation of incompatible land uses, and Town standards and ordinances which do not require street lighting in residential areas. The generally low residential densities proposed, distances between structures, forested setting, and lack of street lighting all assist in reducing impacts of light and glare. Individual projects which are proposed consistent with the General Plan are subject to environmental review when impacts are known, and any identified impacts of light and glare can be mitigated through project design and conditions of approval. The relevant policy statement and implementation measure incorporated in the proposed General Plan which reduce impacts of light and glare are as follows:



Circulation Element

CI-20

Attempt to provide street lighting for crosswalks on Skyway (using old-fashioned street lights).

Open Space/Conservation/Energy Element

OCEP-60

Internally illuminated commercial and industrial

signs shall be discouraged.

Mitigation

Measures:

Because no significant impacts have been identified, no mitigation measures are required.

3.10 LAND USE AND POPULATION

Setting:

Please refer to Section 9.0 of Volume III, *Environmental Setting*, for a description of the existing land use in the Paradise Planning Area; Figure 2-1, *Land Use Diagram*, of Volume I, *Policy Document* for a diagram of the planned land use; Section 11.0 of Volume III for a description of population; and Table 3.1-1 for General Plan buildout population.

Impacts:

Impact Evaluation Criteria: Appendix G of the CEQA Guidelines states that a project will normally have a significant effect on the environment if it will conflict with adopted environmental plans and goals of the community where it is located; disrupt or divide the physical arrangement of an established community; convert prime agricultural land to nonagricultural use or impair the agricultural productivity of prime agricultural land; and/or induce substantial growth or concentration of population. A primary purpose of a general plan is the establishment of the types of plans and goals referred to above, against which the impacts of future development can be measured, and to prevent new land use conflicts from being created. Growth and development which is inconsistent with the established goals



should be considered potentially significant. The proposed environmental plans and goals, objectives, policies and implementation measures for growth, development and land use compatibility of the proposed *Paradise General Plan* include the following:

Land Use Element

LUG-1	Manage	growth	with a	balance	of lan	d uses.
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- LUG-2 Accommodate growth consistent with the physical limitations in Paradise.
- LUO-1 Attempt to maintain a level and pattern of residential growth that sustains the current quality of life.
- LUG-10 Encourage compatible mixed uses in commercial areas.
- LUG-17 Protect existing land uses from incompatible uses.
- LUG-20 Protect residential neighborhoods from encroachment by incompatible land uses.
- LUG-41 Assure that all land uses in the Town conform to the goals and policies of the *General Plan*.
- LUP-55 New higher density land use development, including but not limited to multiple family structures, shall only be permitted in areas served by the community sewer system (upon its construction) when found to be compatible with surrounding land uses and established service levels.
- LUP-92 Protect the location of the Town's future sewage disposal area from incompatible development.



LUP-93 Development projects proposed in the Tertiary Planning Area should not be approved if, after detailed analysis, it is revealed that the proposal would have long-term cumulative adverse environmental impacts on the Town of Paradise.

LUP-97 Development projects proposed in the Tertiary Planning Area should include significant open space buffers between the project area and the Town of Paradise.

LUI-29 Require findings to be made, on a case-by-case basis, that proposed new high density residential development is in accordance with the policies and will not exceed the standards established in the General Plan.

Circulation Element

CP-5 Potential impacts on existing residential neighborhoods shall be considered when approving extension of streets.

Noise Element

NG-1 Preserve the quiet, rural environment of the Town and surrounding areas.

NG-2 Protect Town residents from the harmful and annoying effects of exposure to excessive noise.

NG-3 Protect the economic base of the Town by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses.

Safety Element



- SP-14 Residential development and institutional uses shall not be permitted within the clear (Safety Area 1) or approach (Safety Area 2) zones of the Paradise Skypark Airport.
- SP-15 The Town shall require all new development to comply with the airport height restriction policy, airport safety policy, and land use guidelines for safety compatibility of the *Paradise Skypark Airport Land Use Plan*.

Open Space/Conservation/Energy Element

- OCEG-1 Assure that growth and land use development in Paradise is in harmony with nature.
- OCEG-3 Protect unique and important naturally sensitive areas within the Planning Area.
- OCEG-11 Encourage the retention of remaining agricultural lands and related uses whenever feasible.
- OCEP-15 Views of development from other properties shall be considered when making decisions on compatibility of development.

Impact #3.10-1: Conversion of agricultural lands to nonagricultural use.

Conclusion: This impact was addressed in Section 3.4 (Soils) above and determined to be less than significant.

Impact #3.10-2: The proposed *General Plan* will result in substantial changes or alterations of present or planned land uses in some portions of the Paradise Planning Area.



Conclusion: Physical changes to the environment resulting from changes in present and planned land uses are addressed in other sections of this Chapter, and conclusions reached as to their significance and necessary mitigation measures. These sections include 3.2 Topography, 3.3 Geology/Seismicity, 3.4 Soils, 3.5 Air Quality, 3.6 Hydrology, 3.7 Vegetation and Wildlife, 3.8 Noise, 3.9 Light and Glare, 3.11 Housing, 3.12 Health Hazards and Safety, 3.13 Transportation and Circulation, 3.14 Public Facilities and Services, and 3.15 Scenic and Cultural Resources.

Impact #3.10-3: Land use conflicts between new development in accordance with the *General Plan* and existing development.

Conclusion: While land use conflicts currently exist within the Paradise Planning Area, new land use conflicts could be created between new development and existing uses if development were unregulated. Such conflicts could include noise, light and glare, odors, traffic, and aesthetic impacts, and are potentially significant. However, all new development must be consistent with the proposed General Plan, when adopted, in terms of both land use designations and policy statements, including the policy statements listed above under "Impact Evaluation Criteria". The Town Zoning Ordinance is also designed to reduce and avoid land use conflicts through separation of uses, setbacks, fencing requirements, and the requirement for conditional use permits for some uses which require compliance with conditions of approval. The General Plan also includes policy statements and implementation measures designed to mitigate existing land use conflicts by reducing the number of nonconforming uses which now exist in the community. These policy statements and implementation measures are as follows:

Land Use Element

LUP-85 The relocation of nonconforming uses to areas where such uses are permitted shall be encouraged.



LUP-86 The expansion of existing legally nonconforming uses shall be discouraged.

LUP-87 The Town shall consider exclusion of home occupations from neighborhoods where their presence is out of character with present development and use patterns.

LUP-88 The Town shall assure compatibility between home occupations or cottage industries and residential uses.

LUP-89 The Town shall endeavor to improve its present code enforcement program, including seeking ways to fund necessary personnel.

LUI-65 Zone properties consistent with their *General Plan* land use classification.

LUI-69 Consistently enforce the regulations of the Zoning Ordinance when alerted of illegal uses.

These policies and implementation measures and the Zoning Ordinance will reduce potentially significant impacts to a level which is less than significant.

Impact #3.10-4: Growth-inducing impact. The proposed *General Plan* is designed to accommodate a population of 34,349 within the Primary Planning Area by 2007, representing an annual growth rate of approximately 1.5 percent. Approval of the proposed *General Plan* may lead to increased applications for development projects consistent with the Plan, as well as requests to amend the *General Plan* to accommodate projects not consistent with the Plan.

Conclusion: A general plan which proposes any future development is by definition "growth-inducing". The proposed



General Plan, however, attempts to address all potentially adverse impacts of this growth through policy statements, implementation measures, programs, proposals for adequate infrastructure and services, and protection of environmentally sensitive resources. Impacts which cannot be reduced or mitigated to a level which is less than significant are identified in other sections of this Chapter.

Mitigation Measures:

Because no significant impacts have been identified, no mitigation measures are required.

3.11 HOUSING

Setting:

Please refer to Section 12.0 of Volume III, *Environmental Setting*, for a description of housing in the Paradise Planning Area.

Impacts:

Impact Evaluation Criteria: The Housing Element of the proposed General Plan is required to identify housing needs and establish goals, policies, and quantified objectives for the preservation, improvement and development of housing. The Butte County Association of Governments (BCAG) is required to prepare a Regional Housing Allocation Plan which establishes Paradise's share of the regional housing need (see Table 12-15, Volume III), and the Housing Element is required to reflect that share in its goals and objectives. Failure to designate sufficient land to accommodate needed housing, designation of land far in excess of identified needs, or failure to provide public facilities and services to support housing in designated areas, would result in a general plan that is internally inconsistent, and would represent a potentially significant impact. The relevant Housing Element goals, quantified objectives and policies are as follows:

- HG-1 Strive to provide the amount of affordable housing required by the State and BCAG.
- HG-5 Develop, through public and private channels, sufficient new housing to assure that affordable



housing is available for working families and that housing opportunities are provided for all income levels of Paradise residents, according to the requirements of State law.

- HG-6 Provide incentives for the construction of additional multifamily rental housing, including housing that is affordable to low-income residents.
- HO-2 Maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate planned growth and to allow for a reasonable vacancy rate through 1997.
- HO-3 Production of new housing units to accommodate the total number of households expected to reside in Paradise by 1997. Construction of 1,350 total new housing units by 1997, including 977 single family dwellings, 139 multi-family units and 234 mobile homes.
- HP-3 Based upon appropriate levels of staff and funding resources, the Town shall maintain a sufficient inventory of developable land to accommodate timely development of needed new housing.
- HP-4 The *General Plan* shall identify lands most suitable for multifamily development and strongly encourage multifamily development on these sites.
- HP-12 The Town shall strive to provide adequate public facilities and services to meet the 1997 total new construction needs.
- HP-15 The Town shall encourage the development of a full range of housing types within the Town by 1997, as physical and infrastructure constraints permit, in



proximity to existing and planned employment centers.

HP-19 New residential development shall be directed to areas of the community where essential public facilities and services can be provided.

Impact #3.11-1: Information on General Plan buildout in Table 3.1-1 estimates that the proposed *General Plan* will accommodate 3,125 new dwelling units within the Primary Area and 1,949 new dwelling units within the Secondary Planning Area.

Conclusion: While these figures exceed new construction goals contained in the *Housing Element*, as listed above, the *General Plan* has a 15-year planning period, while the *Housing Element* time frame is only 5 years. It is estimated that these dwelling units will accommodate a population of 34,349 within the Primary Area, a figure which only slightly exceeds the 2007 population figure of 33,000 which the proposed *General Plan* is designed to accommodate. It is normally desirable to allow some flexibility in these estimates to account for physical constraints which may limit development (such as topography and availability of sewer service), to avoid undue restrictions on housing supply which may increase costs, and to allow for some variance in the actual densities constructed. Based on the impact evaluation criteria, this impact is determined to be less than significant and no mitigation measures are required.

Impact #3.11-2: Adverse impacts on existing housing due to policies and programs contained in the proposed *General Plan*.

Conclusion: The policies and programs of the proposed *General Plan* are designed to preserve, upgrade and protect existing housing, rather than result in adverse impacts such as deterioration which would result in substandard housing conditions. This impact is therefore determined to be less than significant, and no mitigation measures are required.



Mitigation Measures:

Because no significant impacts have been identified, no mitigation measures are required.

3.12 HEALTH HAZARDS AND SAFETY

Setting:

Please refer to Section 10.0 of Volume III, *Environmental Setting*, for a description of existing conditions related to health hazards and emergency response and evacuation. Other health and safety hazards are addressed in other sections of this Chapter: wildland fire hazards in Section 3.14, and seismic hazards in Section 3.3.

Impacts:

Impact Evaluation Criteria for Health Hazards: The significance of vector-related impacts can be measured by comparison to the adopted "Guidelines, Checklist and Standards for Vector Prevention in Proposed Developments" of the Butte County Mosquito Abatement District (BCMAD), and a determination made as to whether the proposed *General Plan* impedes compliance with these standards and prevention practices. Full compliance with some adopted guidelines and standards may conflict with the preservation, maintenance and enhancement of wetlands within the Planning Area.

Impact #3.12-1: Exposure of residents of the Paradise Planning Area to potentially high levels of nuisance and disease vectoring mosquitoes and ticks, and creation of new sources of vectors within the planned wastewater treatment plant and stormwater retention basins. The BCMAD has indicated that storm water retention basins are known to breed mosquitoes if they are not properly maintained, and that created marshes associated with wastewater treatment plants pose a serious risk of mosquito production. The mosquito species are important vectors of diseases such as malaria, encephalitis and canine heartworm disease, and the local tick is a vector of Lyme disease.

Conclusion: If proper prevention practices are not applied, impacts related to identified health hazards are potentially



significant. Impacts of the planned wastewater treatment plant have been and will be further addressed in the environmental documentation prepared for that project (Final Environmental Impact Report for the Town of Paradise Central Area Wastewater Collection and Sewage Treatment Facilities System, September 1989, SCH# 88041912) Additional environmental documentation will be prepared for the actual construction of the system following system design, and the BCMAD will be consulted at that time. Mitigation measures are proposed that will reduce impacts of any stormwater retention basins to a level that is less than significant.

Mitigation Measures:

Mitigation Measure #3.12-1: The BCMAD has recommended that stormwater retention basins be properly designed and maintained so they do not breed mosquitoes, in consultation with the BCMAD. Applies to Impact #3.12-1.

Effectiveness of Measure: Compliance with this provision, which avoids conditions that contribute to vector breeding, has been determined to be effective by the BCMAD.

Implementation/Monitoring: It will be the responsibility of the Town Engineering Office to consult with BCMAD regarding the design and maintenance of stormwater retention basins. BCMAD has recommended this mitigation measure. Public Resources Code section 21081.6 provides that where the approving agency has received mitigation suggestions from an agency having jurisdiction by law over natural resources affected by a project, the latter agency must prepare and submit a reporting or monitoring program applicable to the proposed mitigation measure, if so requested by the approving agency. The Town of Paradise intends to submit such a request to the BCMAD.

Impacts:

Impact Evaluation Criteria for Emergency Response and Evacuation: Emergency response is addressed in Section 3.14 (<u>Public Services and Facilities</u>) below. With regard to evacuation, the Town has recently completed and adopted a *Multihazard*

4-55



Disaster Plan. The impact of the proposed General Plan will be significant if it impedes compliance with the recommendations of the Multihazard Disaster Plan.

Impact #3.12-2: The proposed General Plan will result in additional development within the Planning Area, which will contribute to identified traffic flow problems on existing evacuation routes when and if it is necessary to evacuate all or portions of the community.

Conclusion: The impacts of additional development on existing evacuation routes would be potentially significant if this issue were not considered in the planning process. However, policy statements and implementation measures incorporated in the proposed *General Plan*, as well as the land use and circulation system proposals depicted in the *Land Use Diagram* and *Circulation Diagram*, will reduce the impacts to a level which is less than significant. The proposed *General Plan* does not propose additional development in the northerly Secondary Planning Area, which is the area with only one evacuation route (Skyway). The Plan also proposes additional east-west through streets and improvements to existing roadways as shown in Table 2-3 of Volume I, *Policy Document*, as well as the additional east-west connectors indicated on the *Circulation Diagram*.

A policy statement and implementation measure which are incorporated in the proposed *General Plan* which reduce impacts on existing evacuation routes are as follows:

Safety Element

SI-2 Review existing standards for roadway widths, emergency access and road and structural identification and amend as necessary.

Circulation Element



CP-8 Creation of additional connections north to Paradise Pines; west to east to Feather River Hospital; and from west to east in the southern portion of the Town shall be studied.

Mitigation Measures:

Because no significant impacts have been identified, no mitigation

measures are required.

3.13 TRANSPORTATION AND CIRCULATION

Setting:

Please refer to Section 13.0 of Volume III, *Environmental Setting*, for a description of the transportation and circulation setting for the Paradise Planning Area, and Figure 2-2, *Circulation Diagram*, of Volume I, *Policy Document* for a diagram of the planned circulation system. In addition, please refer to Appendix F of this document for transportation and circulation data tables.

Impacts:

Impact Evaluation Criteria: The standard used to evaluate the functioning of the proposed circulation (roadway) system is level of service (LOS). Level of service is a scale that measures operating conditions or maximum design capacity at an intersection or along a roadway segment in relation to the projected traffic volume resulting from the planned circulation system. Levels range from A to F, with "A" representing the highest level of service and "F" roadway failure. Table 3.13-1 represents the average daily traffic criteria for each street classification type for levels of service "C", "D" and "E". The proposed *General Plan* has established level of service "D" or better as the standard for all roadway segments.

Impact #3.13-1: Normally, for a General Plan, a travel demand model is used to estimate peak hour and/or daily traffic volumes produced by existing and projected development. Unfortunately, the Butte County traffic model was not readily available for use in the General Plan analysis. Further, some of the preliminary results from prior application of the Butte County model did not appear logical. Therefore, an alternative approach was used to forecast future roadway traffic volumes.



Dowling Associates' TRAFFIX model was used to calculate existing and projected average daily traffic volumes for numerous roadway segments within the Paradise Planning Area. The following approach was used to generate the total traffic volumes.

- The existing PM peak hour turn movement volumes were divided by 10 percent for all analysis locations except along Skyway where 14 percent was used to estimate average daily traffic levels.
- The standard trip generation rates noted in Table 3.13-2 were applied to all of the projected development within the Primary and Secondary Planning Areas.
- All of the residential traffic was assigned to the street system. For the non-residential land uses only the non-home based (NHB) component was assigned. The NHB component equals 30 percent of the total. The assignment of the residential traffic generates trip ends both at the residential and non-residential ends of the trips. Therefore, only the non-home based component of the non-residential development needs to be added. In sum, 100 percent of the residential trip generation and 30 percent (NHB) of the non-residential trip generation were assigned to the surrounding street system to represent growth in traffic due to new development. The total daily traffic is the sum of existing plus new development traffic.
- The resultant average daily traffic volumes were compared to a set of roadway capacities (based upon number of lanes, roadway configuration and other parameters) to determine the appropriate street classification, number of lanes and level of service for each roadway segment.

Project Trip Generation: Standard trip generation rates were applied to the projected levels of growth within the Primary and Secondary Planning Areas. The resultant increments in new average daily traffic generated by the Plan are detailed in Table 3.13-3. The proposed plan is estimated to generate approximately 81,307 daily



trips. Of these, approximately 32,400 trips are associated with residential development, while 48,900 are created by non-residential land uses. Not all of the new trip generation was assigned to the street system. A factor of 30 percent was applied to the non-residential land uses to estimate the level of non-home based trips between the various non-residential land uses. The 30 percent value is based upon the average value found in many travel demand models. Non-home based trips include trips between office and school, office and shopping or other travel patterns. All of the residential traffic was assigned to the street system. The residential travel includes home-based work, home-based other (includes home to school and shopping) and some non-home based trips (mail and other deliveries). The total residential increment is an estimated 32,400 trips while the non-residential travel is an estimated 13,980.

Trip Distribution (Travel Pattern) Assumptions: The assignment of traffic within the traffic model was made by assigning the trip generation using the following set of trip distribution factors. As 100 percent of the residential land use change was assigned to the street system, an estimate of the distribution of total non-residential land use trip generation was used. The existing land uses and the trips they generate plus the proposed increases in non-residential land use intensities were added together and allocated to specific locations within the Planning Area. The destinations, called gateways, and the final trip distribution values are shown in Table 3.13-4.

While no growth was projected down Skyway (within the Secondary and Tertiary Planning Areas), an estimate of 6 percent growth in trips for destinations toward Chico was included. The proposed growth in Paradise includes extensive increases in Business Park and Light Industrial areas. If these occur, less home-to-work travel between Paradise and Chico will occur. An evaluation of the balance between residential and non-residential travel patterns suggests that the projected levels of Business Park and Light Industrial employment could discourage growth in home-to-work travel between Paradise and Chico, Oroville and other regional employment centers outside of Paradise.

TABLE 3.13-1 AVERAGE DAILY ROADWAY CRITERIA FOR LEVELS OF SERVICE

Roadway Type	Daily Roadway (Capacities by Leve	el of Service
	С	D	E
6 Lane Expressway	48,000	54,000	60,000
4 Lane Expressway	32,000	36,000	40,000
6 Lane Arterial Divided	36,000	40,000	45,000
4 Lane Arterial Divided	24,000	27,000	30,000
4 Lane Arterial Undivided	18,500	21,000	24,000
2 Lane Arterial Divided	12,000	13,000	15,000
2 Lane Arterial Undivided	9,000	10,500	12,000
3 Lane One-Way Arterial	17,000	19,000	22,000
2 Lane One-Way Arterial	12,000	13,000	15,000
4 Lane Collector Divided	15,000	17,000	19,000
4 Lane Collector Undivided	14,000	16,000	18,000
2 Lane Collector Divided	8,000	9,000	10,000
2 Lane Collector Undivided	7,000	8,000	9,000
2 Lane Residential	5,000	6,000	7,000
2 Lane Commercial	5,000	6,000	7,000

Source: Dowling Associates, 1992.

TABLE 3.13-2 AVERAGE DAILY TRIP GENERATION RATES FOR GENERAL PLAN LAND USES

Land Use Type	Trip Rate per Dwelling Unit	Trip Rate per 1,000 square feet
AR (Agricultural Residential)	9.55	
SR (Suburban Residential)	9.55	
TR (Town Residential)	9.55	
MF (Multi-Family Residential)	6.47	
NC (Neighborhood Commercial)		120.00
CC (Central Commercial)		140.00
TC (Town Commercial)		140.00
BP (Business Park)		14.37
LI (Light Industrial)		6.97
CS (Community Service)		15.00
Paradise Pines/Magalia Areas	3.76	

Sources: The Institute of Traffic Engineers (ITE) Fifth Edition; the City of San Diego; Dowling Associates.



A traffic zone system was developed for the TRAFFIX model. Figure 3-1 illustrates the traffic zone system. The Town of Paradise was divided into 80 traffic zones. Table 3.13-5 details the individual traffic zone land uses and trip generation assumptions.

The projected increases in average daily traffic were added to the estimated existing traffic volumes. These volumes were compared to the level of service criteria (see Table 3.13-1) to determine: 1) the number of required travel lanes, 2) the required street classification, 3) the roadway configuration for each of the linkages that was evaluated, and 4) the resultant level of service.

The results of this assessment are provided on Table 3.13-6. Table 3.13-6 defines the build-out requirements for the major roadway facilities within Paradise. Additional traffic projections are provided for State Routes 70, 99 and other regional facilities outside of the Paradise Planning Area under Impact #3.13-2.

In addition to the roadway segments listed in Table 3.13-6, the *Circulation Diagram* includes Residential Collectors which carry less traffic, but which function as collectors to adjacent arterials. These Residential Collectors include the following roadway segments:

- Bille Road west of Skyway
- Roe Road east of Foster Road
- Nunneley Road east of Sawmill
- Elliott Road west of Skyway
- Foster Road
- Valley View Road
- Wagstaff Road west of Skyway
- Oliver Road
- Lucky John Road
- Honey Run Road (portion)
- Scottwood Road
- Dean Road
- Merrill Road
- Stark Lane
- Moore Road
- Wayland Road

TABLE 3.13-3 LAND USE INCREASES AND AVERAGE DAILY TRIP GENERATION

Land Use	Dwelling Units	1,000 Square Feet	Average Daily Trips	Average Daily Trips
AR (Agricultural Residential)	1,057		6,864	
SR (Suburban Residential)	3,344		26,957	
TR (Town Residential)	69		659	
MF (Multi-Family Residential)	584		3,381	
NC (Neighborhood Commercial)		10.890		1,307
CC (Central Commercial)		87.120		3,485
TC (Town Commercial)		457.380		18,298
BP (Business Park)		2,776.940		39,905
LI (Light Industrial)		80.586		562
CS (Community Service)		196.020		2,941
Totals	5,054	3,608.936	37,861	66,498

Source: Dowling Associates, 1992.



- Kibler Road
- Forest Lane

Conclusion: Table 3.13-6 indicates that most of the roadways within Paradise will operate at LOS "C" or better. However, there are a number of exceptions. In addition, the street classifications and resultant design standards used for this analysis include arterial and collector streets which have center medians. Streets with center medians have higher daily and peak hour capacity due to the fact that left turn and through traffic volumes are separated. With a center median facility, left turn movements are not made from the same travel lane as normal through trips.

The roadway criteria for LOS "C", "D" and "E" from Table 3.13-1 were applied to the forecasted average daily traffic volumes. In all cases, the analysis attempted to maintain LOS "C" or better. Therefore, if a 4 lane divided arterial produced LOS "C" while a 4 lane undivided arterial achieved only LOS "D", the 4 lane divided facility was recommended. Along Skyway and Clark south of Neal and Pearson, arterial standards were used because it is assumed that these roadway segments would still have access opportunities.

LOS "D" or better is achieved within Paradise except along Skyway between Maxwell Drive and Neal Road where LOS "F" occurs. The actual level of service is dependent upon the number of travel lanes assumed for Skyway. If 4 lanes is assumed, LOS "F" occurs; if 6 lanes is assumed, LOS "D" - "E" is created along the highest volume segment. Selected roadway segments operated at LOS "D". Along these segments, if the number of lanes is increased, level of service would be improved.

Impacts of traffic on roadway segments which reflect projected levels of service below "D" ("E" OR "F") are potentially significant. However, the policy statement regarding level of service and assumptions for trip generation rate incorporated in the proposed *General Plan* will reduce impacts to a level that is less than significant. This policy statement and assumptions are as follows:

Circulation Element

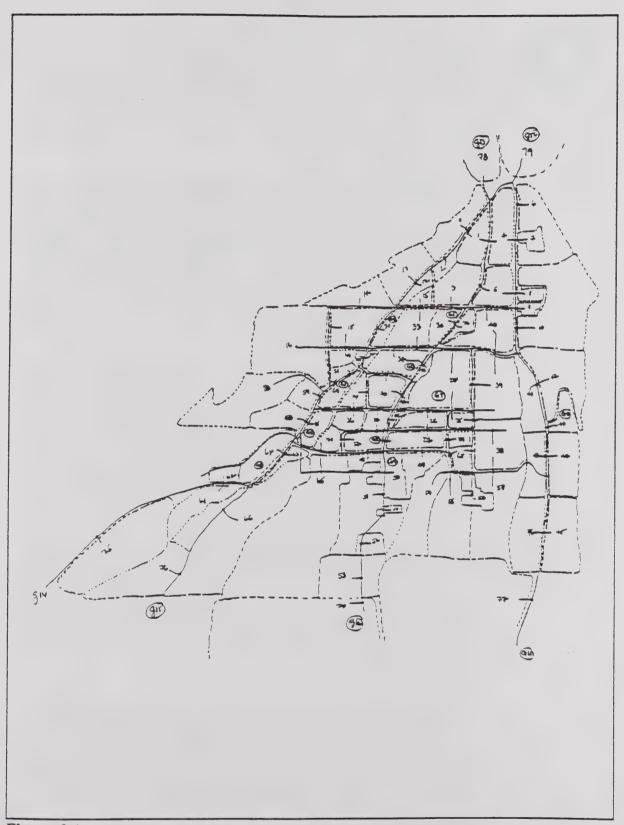


Figure 3-1 Traffic Impact Model (TRAFFIX) - Traffic Zone System

TABLE 3.13-4 TRIP DISTRIBUTION ASSUMPTIONS

	Total Non-Residential Development				
Gateways	Total Daily Trips	Percent			
Skyway So. of Pearson	21777	8.90%			
Skyway Pearson/Elliott	18149	7.40%			
Skyway No. of Elliott	25692	10.50%			
Skyway No. of Bille	22871	9.40%			
Clark No. of Bille	30261	12.40%			
Clark So. of Bille	21626	8.90%			
Elliott E. of Clark	0	0.00%			
Clark So. of Elliott	9365	3.80%			
Clark No. of Pearson	2178	0.90%			
Pentz near Hospital	31174	12.80%			
Pentz So. of Town	751	0.30%			
Skyway towards Magalia	3920	1.60%			
Bader Mine Road	0	0.00%			
Skyway So. of Town	13830	5.70%			
Neal South of Town	17214	7.00%			
Clark So. of Town	25534	10.40%			
Totals	244342	100.00%			

Source: Dowling Associates, 1992.

TABLE 3.13-5 DETAIL OF AVERAGE DAILY TRIP GENERATION

Traffic Zone	Land Use	Dwelling Units	1,000 Square Feet	Daily Trip Rate	Daily Two-way Trips
1	SR	20		9.55	191
1	TC		87.12	40.00	3485
2	SR	15		9.55	143
3	SR	20		9.55	191
4	SR	20		9.55	191
5	CS		65.34	15.00	980
5	SR	20		9.55	191
6	AR	10		9.55	96
6	SR	56		9.55	535
7				15.00	0
8				15.00	0
9				15.00	0
10	AR	9		9.55	86
10	SR	57		9.55	544
11	AR	6		9.55	57
11	SR	21		9.55	201
11	TC		21.78	40.00	871
12	SR	6		9.55	57
12	TC		10.89	40.00	436
13	SR	21		9.55	201
14	AR	28		9.55	267
14	SR	25		9.55	239
15	SR	3		9.55	29
16	AR	35		9.55	334
16	SR	165		9.55	1576
17	MF	15		6.47	97
17	TR	14		9.55	134
18	SR	10		9.55	96
19	SR	10		9.55	96

Traffic Zone	Land Use	Dwelling Units	1,000 Square Feet	Daily Trip Rate	Daily Two-way Trips	
20	тс		10.89	40.00	436	
21	тс		10.89	40.00	436	
22	MF	12		6.47	78	
22	SR	47		9.55	449	
23	MF	11		6.47	71	
23	SR	46		9.55	439	
24	SR	6		9.55	57	
25				15.00	0	
26				15.00	0	
27				15.00	0	
28	MF	8		6.47	52	
29	TR	17		9.55	162	
30				15.00	0	
31	TC		36.48	40.00	1459	
32	TC		17.97	40.00	719	
32	TR	8		9.55	76	
33	SR	30		9.55	287	
33	TC		38.115	40.00	1525	
34	SR	29		9.55	277	
35	СС		87.12	40.00	3485	
35	TC		10.89	40.00	436	
36	MF	75		6.47	485	
37	TC		21.78	40.00	871	
38	SR	50		9.55	478	
39	SR	50		9.55	478	
40	AR	10		9.55	96	
40	NC		10.89	120.00	1307	
40	SR	40		9.55	382	
41	AR	3		9.55	29	
41	SR	54		9.55	516	
42	AR	3		9.55	29	
42	SR	54		9.55	516	

Traffic Zone			1,000 Square Feet	Daily Trip Rate	Daily Two-way Trips	
42	TC		21.78	40.00	871	
43	AR	3		9.55	29	
43	SR	54		9.55	516	
44	AR	2		9.55	19	
44	SR	54		9.55	516	
46	SR	50		9.55	478	
47	, Cs		21.78	15.00	327	
48				15.00	0	
49	SR	14		9.55	134	
50	AR	10		9.55	96	
50	MF	248		6.47	1605	
51	SR	186		9.55	1776	
51	TC		21.78	40.00	871	
52	ВР		729.63	14.37	10485	
53	AR	32		9.55	306	
53	ВР		196.02	14.37	2817	
54	AR	40		9.55	382	
54	SR	67		9.55	640	
55	AR	40		9.55	382	
55	SR	70		9.55	669	
56	MF	30		6.47	194	
56	SR	20		9.55	191	
57	AR	40		9.55	382	
57	SR	90		9.55	860	
58	SR	42		9.55	401	
58	TC		10.89	40.00	436	
59	AR	119		9.55	1136	
59	MF	15		6.47	97	
59	SR	41		9.55	392	
59	TC		10.89	40.00	436	
60				15.00	0	
61	SR	96		9.55	917	

Traffic Zone	Land Use	Dwelling Units	1,000 Square Feet	Daily Trip Rate	Daily Two-way Trips
62	AR	6		9.55	57
62	TR	3		9.55	29
63	TC		21.78	40.00	871
64	тс		10.89	40.00	436
65	SR	280		9.55	2674
66	AR	37		9.55	353
66	SR	281		9.55	2684
67				15.00	0
68				15.00	0
69	тс		43.56	40.00	1742
70	MF	23		6.47	149
70	TC		38.115	40.00	1525
70	TR	3		9.55	29
71	SR	5		9.55	48
72	AR			9.55	0
72	тс		10.89	40.00	436
72	TR	24		9,55	229
73	LI		80.586	6.97	562
74	ВР		653.407	14.37	9389
74	CS		108.9	15.00	1634
74	SR	0		9.55	0
76	AR	58		9.55	554
76	BP		1197.883	14.37	17214
77	AR	8		9.55	76
77	SR	258		9.55	2464
78	AR			9.55	0
78	SR			9.55	0
78	MF			6.47	0
79	AR	558		9.55	5329
79	SR	861		9.55	8223
79	MF	147		6.47	951

Source: Dowling Associates, 1992.



CP-1 The Town shall strive to maintain a level of service (LOS) "D" or better as the standard for new and existing roadways in the Paradise Planning Area. LOS "D" or better shall be maintained on all local streets within the town limits, and LOS "C" or better shall be maintained whenever feasible. However, the Skyway between Bille and Neal Roads may be allowed to exceed this standard. The Town shall review average daily traffic volumes along Skyway between Bille and Neal Roads before and after any construction of Skyway as a 4-lane arterial with a center two-way left turn lane. If and when the LOS "D" threshold is reached, the Town shall determine whether to construct additional improvements to Skyway or to amend the Land Use Element designations and Circulation Element to maintain acceptable traffic volumes.

Trip Generation Assumptions

For the traffic generated in Paradise Pines and Magalia, the traffic consultant divided the number of existing two-way trips on Skyway just north of Pentz Road by the total number of dwelling units. The resultant trip rate was approximately 3.8 trips per dwelling unit. This rate is substantially lower than rates used for the residential growth in Paradise (7.66 trips per unit was used for all residential other than multi-family which used 6.47 trips per unit.) Surveys indicate that approximately 42 percent of the population is over 60 years of age. This would suggest that less travel on average may be generated by the housing in Paradise. A reduction in the average daily and peak hour trip generation rate would appear warranted. Reductions of 20 to 25 percent could be considered.

Mitigation measures listed below can further reduce impacts, but are not required to reduce impacts to a level that is less than significant.

Level of Service Considerations: This General Plan assessment used average daily traffic volumes to define the numbers of lanes and street classifications within Paradise. While the traffic volume criteria provides an estimate for average daily level of service, traffic impacts during peak hours could exceed LOS "C" at major intersections. Therefore, the recommendations for numbers of lanes and street type

TABLE 3.13-6
PROJECTED TRAFFIC VOLUMES, LANE REQUIREMENTS, CLASSIFICATION AND LEVELS OF SERVICE

Roadway Segment		Daily Volume	Lanes	Center	Proposed Classification	LOS Threshold	Los
Skyway	South of Neal	24,600	4	Undivided	Expressway	32,000	C or Better
	Neal to Pearson	45,000	6	Divided	Arterial	45,000	E
	Pearson to Elliott	38,300	6	Divided	Arterial	40,000	D
	Elliott to Oliver	39,600	6	Divided	Arterial	40,000	D
	Oliver to Maxwell	36,600	6	Divided	Arterial	40,000	D
	Maxwell to Bille	33,600	6	Divided	Arterial	36,000	C or Better
	Bille to Wagstaff	25,500	6	Divided	Arterial	36,000	C or Better
	Wagstaff to Clark	18,200	4	Undivided	Arterial	18,500	C or Better
	Clark to Pentz	21,100	4	Divided	Arterial	24,000	C or Better
	North of Pentz	21,700	4	Divided	Arterial	24,000	C or Better
Clark Road	South of Pearson	23,500	4	Undivided	Expressway	32,000	C or Better
	Pearson to Elliott	24,900	4	Divided	Arterial	27,000	D
	Elliott to Bille	26,500	4	Divided	Arterial	27,000	D
	Bille to Wagstaff	23,800	4	Divided	Arterial	24,000	C or Better
	Wagstaff to Skyway	11,700	2	Divided	Arterial	12,000	C or Better
Pentz Road	South of Pearson	7,800	2	Undivided	Collector	9,000	C or Better
	Pearson to Bille	9,600	2	Undivided	Arterial	10,500	D
	Bille to Skyway	6,600	2	Undivided	Collector	9,000	C or Better
Neal Road	South of Skyway	15,700	4	Divided	Collector	18,500	C or Better
Pearson Road	Skyway to Clark	24,500	4	Divided	Arterial	27,000	D
	Clark to Edgewood	15,200	4	Undivided	Arterial	18,500	C or Better
	Edgewood to Pentz	10,900	2	Divided	Arterial	12,000	C or Better

Dowling Associates Average Daily Traffic Assignments								
Roadway Segment		Daily Volume	Lanes	Center	Proposed Classification	LOS Threshold	LOS	
Elliott Road	Skyway to Clark	16,300	4	Undivided	Arterial	18,500	C or Better	
	Clark to Sawmill	8,300	2	Undivided	Collector	9,000	C or Better	
	Sawmill to Pentz	3,000	2	Undivided	Collector	9,000	C or Better	
Bille Road	Skyway to Clark	13,400	4	Undivided	Arterial	18,500	C or Better	
	Clark to Sawmill	10,200	2	Undivided	Collector	9,000	C or Better	
	Sawmill to Pentz	7,100	2	Undivided	Collector	9,000	C or Better	
Wagstaff Road	Skyway to Clark	9,000	2	Divided	Arterial	12,000	C or Better	
	Clark to Pentz	7,900	2	Undivided	Collector	9,000	C or Better	
Sawmill Road	Pearson to Bille	3,000	2	Undivided	Collector	9,000	C or Better	
	South of Pearson	1,200	2	Undivided	Collector	9,000	C or Better	
Rocky Lane	Wagstaff to Skyway	1,000	2	Undivided	Collector	9,000	C or Better	
Maxwell Drive	Elliott to Skyway	3,400	2	Undivided	Collector	9,000	C or Better	
Central Park Drive	Maxwell to Clark	2,700	2	Undivided	Collector	9,000	C or Better	
Nummeley Road	Pearson to Sawmill	3,200	2	Undivided	Collector	9,000	C or Better	
Buschmann Road	Foster to Clark	2,700	2	Undivided	Collector	9,000	C or Better	
Roe Road	Neal to Foster	1,000	2	Undivided	Collector	9,000	C or Better	
South Libby	South of Pearson	1,000	2	Undivided	Collector	9,000	C or Better	
Edgewood Lane	South of Pearson	1,000	2	Undivided	Collector	9,000	C or Better	

Source: Dowling Associates, 1992.



(classification) should not be used to discourage individual environmental review for specific development projects within Paradise.

Impact #3.13-2: While the traffic model for Paradise did not project land use changes outside of the Primary and Secondary Planning Areas, some traffic was assigned to all three of the major roadways leaving Paradise. The model forecasts that approximately 8,500 new daily trips will be added to these facilities. Of these trips, an estimated 3,100 will use Skyway, 5,200 Clark Road and 200 Pentz Road. It is assumed that most of the Skyway trips are destined for Chico, while the Clark Road traffic is destined for Routes 70 or 99, with the largest component allocated to Route 70. The Butte County Congestion Management Plan forecasts 90,000 daily trips on Route 99 between Skyway and Route 32 in Chico. The Plan recommends a 6 lane freeway operating at LOS "A".

Conclusion: Adding the 3,100 daily trips from Paradise will not significantly impact the level of service on Route 99. Route 70 south of Route 149 is projected to carry 62,300 daily trips at LOS "C" (4 lane freeway). Adding the entire 5,200 daily trips from Paradise would not change the LOS on this link during the peak hours. It is estimated that 620 additional peak hour trips would be added to the projected 5,600 volume for a total of 6,220 peak hour trips. Assuming a capacity of 8,000 vph, the resultant LOS would be .78 or "C", and the impact will be less than significant.

Mitigation Measures:

Mitigation Measure #3.13-1: A series of new east/west residential collector connector roadways could be developed in the southern portion of the Town of Paradise to divert traffic from Pearson Road. Roadways proposed on the *Circulation Diagram* include:

- Roe Road east of Foster to Clark and Anchor Way
- Wayland Road

Additional potential east-west connectors include:

Buschmann westerly to Skyway



Neal Road to Skyway

Applies to Impact #3.13-1.

Effectiveness of Measure: Of these options, the Buschmann and Roe Road connectors would divert the greatest number of peak hour and daily trips. In fact, the diversion could be significant enough to require a 2 lane divided collector along Roe Road. The easterly extension of Roe Road to Anchor Way would reduce the need to widen Pearson Road east of Clark Road. Of course, if the Business Park and/or Light Industrial uses south on Clark and Neal Road generate more traffic towards Chico and Oroville rather than Paradise, the need for these new connectors would be diminished.

Implementation/Monitoring: The Town Engineering Office is responsible for assuring that new road construction is accomplished in accordance with the General Plan and EIR.

Mitigation Measure #3.13-2: Reconstruct the intersection of Foster Road and Pearson Road to physically prevent traffic from crossing Pearson Road from one side of Foster Road to the other. Applies to Impact #3.13-1.

Effectiveness of Measure: This measure will reduce traffic volumes on Pearson Road to level of service "C".

Implementation/Monitoring: The Town Engineering Office is responsible for assuring that the necessary reconstruction takes place in accordance with the General Plan and EIR.

3.14 PUBLIC FACILITIES AND SERVICES

Setting:

Please refer to Section 14.1 of Volume III, *Environmental Setting*, for a description of law enforcement in the Paradise Planning Area; Section 14.2 for fire protection; Section 14.3 for solid waste; Section 14.6 for schools; Section 14.7 for parks and recreation; Section 14.8 for water: and Section 14.9 for wastewater.



Impacts:

Impact Evaluation Criteria: Impacts on public facilities and services from the proposed *General Plan* can be considered significantly adverse if the cumulative impacts of development in accordance with the Plan will result in one or more of the following situations which would not be mitigated or offset by policy statements in the Plan or the existing standard tax or fee system:

- A need for new systems or services results;
- Substantial alterations to the existing systems or services are necessary;
- The providing agency is currently operating at or above capacity and the additional service need would create an additional burden

Impact #3.14-1: Increased demand on police services. Additional development and population accommodated by the proposed *General Plan* will result in an estimated need for 5 to 6 additional officers (plus equipment and support personnel) during the planning period to maintain the existing staffing standard of one officer per 1,200 residents and response time of 5 minutes. If all or portions of the Secondary Planning area are annexed, the Town will be required to provide police protection services to these areas as well. At planned densities, it is estimated that an additional 11 to 12 officers would be required to serve existing developed areas and planned new development. If annexation of areas is formally proposed by the Town, feasibility studies concerning a plan for providing services and environmental documentation will be required prior to approval.

Conclusion: Based on the impact evaluation criteria, increased demand on police services is a significant impact. However, policy statements and implementation measures incorporated in the proposed *General Plan* closely tie development to the availability of law enforcement services, and will reduce this impact to a level which is less than significant. These policy statements and implementation measures are as follows:

Land Use Element



- LUP-9 The character of future development shall be compatible with the Town's service delivery abilities and shall not result in service level declines.
- LUP-10 The Town shall assure that the rate and character of growth is commensurate with or does not exceed the current level of public services, and shall assure that municipal services can be provided to areas planned for annexation and development.
- LUP-12 The Town shall continue to investigate means to improve its public service delivery capacity to assure that future growth does not outstrip services.
- LUP-18 New land use development shall not cause the levels of police protection to fall below the service levels established by this Plan.
- LUP-20 Future development shall be designed and constructed to take maximum advantage of known fire and crime prevention siting, orientation and building techniques.
- LUP-21 Establishment of assessment districts shall be considered in newly developing areas to assure that the longer term costs of land use development are adequately funded.
- LUP-22 A system of fees shall be established sufficient to assure that future growth pays its equitable share of service delivery costs.
- LUI-12 Establish law enforcement and fire protection impact fees for new land use development sufficient to assure that established levels of protection are maintained.
- LUI-13 If feasible, establish law enforcement and fire protection service fees for existing land uses sufficient to assure that established levels of protection are maintained.



LUI-14 Establish standards for fire and crime prevention, orientation and building techniques in the Zoning and Subdivision Ordinances.

LUI-15 Establish a fee or fees to be collected upon issuance of permits for new development that will cover the cost of additional services and infrastructure not paid directly by the developer.

LUI-16 Utilize Mello-Roos and other forms of assessment district financing where the economics of new development permit.

Impact #3.14-2: Increased fire protection demand. As development occurs in accordance with the proposed *General Plan*, a cumulative increase in the demand for fire protection services will result. If all or portions of the Secondary Planning Area are annexed, the Town will be obligated to provide fire protection services to existing development and new development. If annexation of areas is formally proposed by the Town, feasibility studies concerning a plan for services and environmental documentation will be required prior to approval.

Conclusion: Based on the impact evaluation criteria, increased demand on fire services is a significant impact. However, policy statements and implementation measures incorporated in the proposed *General Plan* closely tie development to the availability of fire protection services, and will reduce these impacts to a level which is less than significant. Policy statements and implementation measures which will reduce these impacts are as follows:

Land Use Element

LUP-9 The character of future development shall be compatible with the Town's service delivery abilities and shall not result in service level declines.

LUP-10 The Town shall assure that the rate and character of growth is commensurate with, or does not exceed the



current level of public services, and shall assure that municipal services can be provided to areas planned for annexation and development.

- LUP-12 The Town shall continue to investigate means to improve its public service delivery capacity to assure that future growth does not outstrip services.
- LUP-19 New land use development shall not cause the levels of fire protection to fall below the service levels established by this Plan.
- LUP-20 Future development shall be designed and constructed to take maximum advantage of known fire and crime prevention siting, orientation and building techniques.
- LUP-21 Establishment of assessment districts shall be considered in newly developing areas to assure that the longer term costs of land use development are adequately funded.
- LUP-22 A system of fees shall be established sufficient to assure that future growth pays its equitable share of service delivery costs.
- LUP-25 The Town shall designate general locations for new schools and fire stations in the Planning Area and shall reflect the general location of these future facilities on the *Land Use Diagram*. The actual location of fire stations shall be in conformance with the criteria established in the *Safety Element*.
- LUI-12 Establish law enforcement and fire protection impact fees for new land use development sufficient to assure that established levels of protection are maintained.
- LUI-13 If feasible, establish law enforcement and fire protection service fees for existing land uses sufficient



to assure that established levels of protection are maintained.

LUI-15 Establish a fee or fees to be collected upon issuance of permits for new development that will cover the cost of additional services and infrastructure not paid directly by the developer.

LUI-16 Utilize Mello-Roos and other forms of assessment district financing where the economics of new development permit.

Safety Element

SP-7 New fire station(s) shall be located so that all areas within town limits are within a 5-minute emergency response time. New fire station locations shall be within a 1/2-mile radius of the symbols indicated on the Land Use Diagram.

Impact #3.14-3: Increased structural and wildland fire hazard. Additional development in areas subject to wildland fire hazard will result in the exposure of additional people and property to this hazard.

Conclusion: The potential exists for significant impacts to occur with regard to exposure of additional people and structures to wildland fire hazard if development and construction were unregulated. However, policy statements and implementation measures that have been incorporated in the proposed *General Plan*, Town Improvement Standards, and an existing Town ordinance which prohibits new shake roofs will reduce these impacts to a level which is less than significant. Impacts related to water supply are addressed in Impact #3.14-8 below. Policy statements and implementation measures incorporated in the *General Plan* which will reduce these impacts are as follows:

Land Use Element



LUP-20 Future development shall be designed and constructed to take maximum advantage of known fire and crime prevention siting, orientation and building techniques.

Safety Element

- SP-2 Through the development review process, adequate roads shall be required to be constructed and/or improved for emergency vehicle access.
- SP-5 The Town shall promote fire prevention by continuing to require brush removal and fuel load clearing as ongoing conditions of development approval and property maintenance.
- SP-6 The Town shall adopt a recent Uniform Fire Code amended to reflect the unique needs of Paradise, and require compliance with its provisions.
- SP-8 The Town shall encourage Butte County to enforce standards conforming to the fire safety standards established by the State Board of Forestry for State Responsibility Areas within the Paradise Secondary and Tertiary Planning Areas, including:
 - Road standards for fire equipment access
 - Standards for signs identifying streets, roads and buildings
 - Minimum private water supply reserves for emergency fire use
 - Fuel breaks and greenbelts
 - Land use policies and safety standards that take into account the recurrent nature of wildland fires
 - Design standards establishing minimum road widths and clearances around structures
 - Emergency preparedness protocol and procedures
 - Maximum length of cul-de-sac roadways.



SI-1	Review	exis	ting s	standard	ls for	roadway	widths,
	emergen	су	access	and	road	and	structural
	identifica	ation	and ar	mend as	necess	ary.	

- SI-6 Educate residents regarding the dangers of seismic activity and wildland fires, and the Town of Paradise *Multihazard Disaster Plan*.
- SI-7 Adopt the Town of Paradise Multihazard Disaster Plan by reference in the General Plan.
- SI-8 Enforce and comply with the provisions of the Uniform Building Code and the Uniform Fire Code.
- SI-9 Require adequate dry brush clearance around structures.

Impact #3.14-4: Reduction of available landfill capacity. Using an estimated solid waste generation rate of one ton per capita per year which is disposed to the landfill, as reported in the Paradise *Source Reduction and Recycling Elements*, approximately 11,672 additional tons of solid waste would be generated annually at buildout within the Primary and Secondary Planning Areas. This amount would contribute to cumulative regional impacts on landfill capacity. It is currently estimated that the Neal Road Landfill will reach capacity in 1999.

Conclusion: Based on the impact evaluation criteria, the potential exists for a significant cumulative impact on the landfill. However, policy statements and implementation measures incorporated in the proposed *General Plan*, along with adoption and implementation of the Paradise *Source Reduction and Recycling Elements*, will reduce impacts to a level which is less than significant. The *Source Reduction and Recycling Elements* have been prepared in compliance with State mandates which require reductions in solid waste disposed to landfills by 1995 and 2000. Policy statements and implementation measures in the proposed *General Plan* which will reduce impacts on the landfill are as follows:



Open Space/Conservation/Energy Element

- OCEP-49 The Town shall support and develop programs to recycle useful materials, including composting as an alternative to vegetation burning.
- OCEP-50 Active community involvement in solid waste management and recycling shall be encouraged.
- OCEI-31 Adopt and implement the Source Reduction and Recycling Elements and Household Hazardous Waste Element.
- OCEI-34 Work towards establishment of a composting/chipping program.
- OCEI-35 Establish mandatory refuse disposal, including a curbside recycling program.
- OCEI-36 Improve recycling operations to accept all recyclables and maintain convenient hours of operation.
- OCEI-37 Eliminate leaf burning after establishing a program for disposing of yard waste in an environmentally sensitive manner.

Impact #3.14-5: Need to extend solid waste collection services. The Town is served by several private waste disposal companies, but service is not mandatory. If refuse collection is not assured for new development, there is a potential for illegal waste disposal, additional burning of waste vegetation, and failure to meet the State-mandated waste disposal reduction goals.

Conclusion: Based on the impact evaluation criteria, these impacts are potentially significant. However, policy statements and implementation measures listed in Impact #3.14-4 above which are incorporated in the proposed *General Plan*, and adoption and implementation of the *Source Reduction and Recycling Elements*, will reduce these impacts to a level which is less than significant.



Mandatory refuse disposal service is funded by fees for service, and will contribute to tipping fees collected at the landfill which are used by Butte County to offset the cost of landfill maintenance and expansion.

Impact #3.14-6: Increased school enrollment. The Paradise Unified School District is operating under conditions of overcrowding, as described in Section 14.6 of Volume III, *Environmental Setting*. Using the yield factors contained in the Paradise Unified School District *Developer Fee Facilities Plan* of: .24 elementary students per household, .06 intermediate students per household, and .09 high school students per household, planned *General Plan* buildout has the potential of ultimately increasing the District's enrollment by 1,978 students (1,217 elementary, 304 intermediate, and 457 high school students). Based on District criteria for school size, it is estimated that this will result in the need for four additional schools (two elementary, one intermediate, and one high school).

Conclusion: The cumulative impacts of development in accordance with the proposed *General Plan* are potentially significant. However, policy statements and implementation measures included in the *General Plan* closely tie new development to availability of school facilities, and will reduce impacts to a level which is less than significant. These impacts are further reduced by District implementation of year-round school. Policy statements and implementation measures which will reduce impacts on schools are as follows:

Land Use Element

LUP-13

Unless assurance is obtained that an adequate level of all public facilities, including schools, will be available to future residents, no discretionary residential project shall be approved [to increase density of use.] The assurance shall include details of how any impacts identified as a result of the proposed land use actions are to be mitigated.



- LUP-14 The Town shall encourage the Paradise Irrigation District, Lime Saddle Community Services District, Paradise Recreation and Parks District, Paradise Cemetery District, and Paradise Unified School District to expand or enhance service capacity, consistent with the Town's General Plan.
- LUP-25 The Town shall designate general locations for new schools and fire stations in the Planning Area and shall reflect the general location of these future facilities on the *Land Use Diagram*. The actual location of schools shall be in conformance with the criteria established in the *Education and Social Services Element*.
- LUI-16 Utilize Mello-Roos and other forms of assessment district financing where the economics of new development permit.
- LUI-19 Work closely with PID, PRPD and PUSD in monitoring housing, population and enrollment trends and evaluating their effects on future service, parks and school facility needs.

Education and Social Services Element

- ESP-8 Proposed General Plan amendment(s), or zoning reclassification(s) to allow residential development shall not be approved if it is documented by the Paradise Unified School District to the Town of Paradise Planning Commission that adequate school facilities cannot be made available concurrently with the need for such facilities. This documentation shall demonstrate that:
 - The Paradise Unified School District has imposed all school mitigation fees pursuant to Government Code Section 53080 or equivalent mitigation measures not otherwise prohibited by statute.



- The Paradise Unified School District has filed a current copy of its *School Facilities Plan* with the Community Development Department.
- The Paradise Unified School District's School Facilities Plan shall accurately document its existing facilities, provide future school facilities projections, both short and long term, and identify the use of the current and projected revenues which are anticipated to meet those needs. In addition, the School Facilities Plan shall document the District's reasonable good faith efforts to seek all available funding, without substantial prejudice to the Paradise Unified School District's reasonable historical educational standard(s), and a current representation regarding the prospects for seeking and/or obtaining funds in the reasonably foreseeable future.
- The Paradise Unified School District shall file any and all amended *School Facilities Plan(s)* with the Town of Paradise Community Development Department within thirty (30) days after their adoption.
- ESP-9 The Town of Paradise shall cooperate with the Paradise Unified School District in establishing school funding mechanisms.
- ESP-11 The Town shall route all requests for divisions of land, rezonings, annexations and General Plan amendments to the Paradise Unified School District for review and comment.
- ESP-12 The Town shall make specific findings regarding school enrollment and service capacities when acting on applications for divisions of residential land, residential rezonings, annexations and General Plan amendments.



ESI-6 Explore the feasibility of establishing a specific development impact fee program to assist the Paradise Unified School District to offset the impacts upon their facilities resulting from residential growth.

Impact #3.14-7: Increased demand on existing and for new public parks and recreational facilities. The Town Subdivision Ordinance establishes a park acreage standard of 3 acres per 1,000 population, and the proposed *General Plan* increases that standard to 5 acres per 1,000.

Conclusion: Based on the impact evaluation criteria, increased demand for public parks would be considered potentially significant. However, objectives, policy statements and implementation measures incorporated in the proposed *General Plan*, and Town requirements for park land dedication or payment of in-lieu fees, will reduce potential impacts to a level which is less than significant. Objectives, policy statements and implementation measures which will reduce impacts on parks and recreation are as follows:

Open Space/Conservation/Energy Element

- OCEO-5 Increase the standard ratio of park acreage to population to 5 acres per 1,000 population.
- OCEP-19 Whenever feasible, trailways shall be established in conjunction with new development, to serve as buffers and corridors between development, linking existing trailways, parks and school sites.
- OCEP-20 The Town shall work with Feather River Hospital to create a public park and trail system on their property overlooking the Feather River Canyon.
- OCEP-33 The continued operation of the golf course shall be encouraged, possibly through acquisition.
- OCEP-34 The feasibility of establishing a public campground near DeSabla and Paradise Lakes shall be explored.



OCEP-36 A linear park shall be established encompassing the Paradise Memorial Trailway which is natural in design.

OCEP-37 The Town shall designate general locations for new parks and recreational facilities on the *Land Use Diagram* as sites are identified or become available.

OCEP-39 The Town shall endeavor to acquire and/or establish additional open space, particularly in the eastern portion of town.

OCEI-20 Work with the Paradise Recreation and Park District to facilitate development of park and recreational facilities consistent with the *General Plan* and assist with identification and acquisition of funding sources.

Land Use Element

LUP-14 The Town shall encourage the Paradise Irrigation District, Lime Saddle Community Services District, Paradise Recreation and Parks District, Paradise Cemetery District, and Paradise Unified School District to expand or enhance service capacity, consistent with the Town's General Plan.

Impact #3.14-8: Increased water consumption, provision of adequate water supplies, and need for additional fire flow and peakload water supply. Based upon the estimated population at *General Plan* buildout, it is calculated that an additional 1.7 to 2.0 million gallons per day will be needed at buildout in the Primary Area and 1.1 to 1.3 million gallons per day in the Secondary Planning Area (based on PID figures for historical per capita water use in the District). It is also necessary to assure that adequate fire flow is available for fire protection purposes.

Conclusion: Based upon impact evaluation criteria, the impact on water supply will be a significant unavoidable cumulative impact. While the proposed *General Plan* closely links new development to



available water supplies, includes policy statements and implementation measures designed to reduce impacts by assuring an adequate water supply, and includes water conservation policies, it will still result in the depletion of water resources. In the context of provision of water service in Paradise (refer to Volume III, *Environmental Setting*), impacts on water supply are determined to be cumulatively significant, and no additional mitigation measures are available. Policy statements and implementation measures incorporated in the proposed *General Plan* which will reduce impacts on water supply are as follows:

Land Use Element

- LUP-10 The Town shall assure that the rate and character of growth is commensurate with, or does not exceed the current level of public services and shall assure that municipal services can be provided to areas planned for annexation and development.
- LUP-11 Growth and land use development shall be linked to the availability of public services and facilities.
- LUP-14 The Town shall encourage the Paradise Irrigation District, Lime Saddle Community Services District, Paradise Recreation and Parks District, Paradise Cemetery District, and Paradise Unified School District to expand or enhance service capacity, consistent with the Town's General Plan.
- LUP-24 The merging of Paradise Irrigation District water treatment and delivery systems with Town operations shall be considered.
- LUI-10 Seek the cooperation of the Paradise Irrigation District and the Lime Saddle Community Services District to assure an adequate water delivery system for the community.



LUI-18 Request LAFCO to study consolidation of the Paradise Irrigation District and other special districts with Town government.

LUI-19 Work closely with PID, PRPD and PUSD in monitoring housing, population and enrollment trends and evaluating their effects on future service, parks and school facility needs.

Safety Element

SP-4 The Town shall work with the Del Oro Water Company, the Paradise Irrigation District and the Lime Saddle Community Services District to assure the adequacy of fire flow and peakload water supplies.

SP-6 The Town shall adopt a recent Uniform Fire Code amended to reflect the unique needs of Paradise and require compliance with its provisions.

SI-1 Establish standards for adequate fire flows for new development and expansion of existing development.

Open Space/Conservation/Energy Element

OCEP-40 The use of reclaimed ("gray") water shall be encouraged as permitted by law.

OCEP-41 New commercial development shall be strongly encouraged to use drought-tolerant landscaping, and the amount of new turf may be limited.

OCEI-38 Support the water conservation standards and programs of the Paradise Irrigation District, the Del Oro Water Company and the Lime Saddle Community Services District.

The Department of Fish and Game has indicated that the EIR should address increased water supply impacts caused by pumping,



diversions, dams, etc. on springs, lakes, streams, aquatic and wetland habitats and fisheries. Please refer to Section 3.7 (Vegetation and Wildlife) for a discussion of impacts on wetlands and fisheries. As described in Section 14.8 of Volume III, Environmental Setting, the Paradise Irrigation District is exploring both surface and groundwater sources for future water supplies, and no determination has been made to commence or increase pumping or diversions or to construct new or expand the capacity of existing dams and reservoirs. The location of these future water supplies is not even known. These impacts are too speculative to address in this EIR; the PID or other water provider will, however, be required to address such environmental impacts at such time that new or expanded facilities or actions are proposed.

Impact #3.14-9: Impact of additional septic systems. Impacts of additional septic systems on water quality were addressed in Section 3.6 (Hydrology) above, and it was concluded that impacts will be reduced to a level that is less than significant.

Impact #3.14-10: Impact of construction of a wastewater treatment, collection and disposal system which will serve portions of the community. The construction of such a system is a major assumption of the proposed *General Plan*. Some land use designations and density ranges are based upon this assumption (refer to Table 2-1, Volume I, *Policy Document*). If all or portions of the Secondary Planning Area are annexed, the sewer system will likely need to be expanded at some point to serve these areas.

Conclusion: The impacts of construction of this system are potentially significant; however, these impacts have been and will be addressed in environmental documents prepared for that project. A Final Environmental Impact Report was certified for the Central Area Wastewater Collection and Sewage Treatment Facilities System (SCH# 88041912) by the Town of Paradise, and additional environmental documentation will be required for approval of the actual design and construction of the proposed wastewater facilities.

Mitigation



Measures:

Because no significant impacts have been identified, or no mitigation measures are available, no mitigation measures are required.

3.15 SCENIC AND CULTURAL RESOURCES

Setting:

Please refer to Sections 3.1 and 3.15 of Volume III, *Environmental Setting*, for a description of the Town history and scenic and cultural resources of the Paradise Planning Area.

Impacts:

Impact Evaluation Criteria for Cultural Resources: Appendix K of the CEQA Guidelines provides explicit guidance for determining the "archaeological importance" (i.e., significance) of cultural resources and suggestions for mitigating effects to them. Archaeological importance is generally a measure of the archaeological research value of a site. Archaeological sites, particularly those of the Historic period, are considered to be archaeologically important only if the archaeological or historical information they represent can be obtained solely through archaeological methods (i.e., systematic excavation). historically consequential information can be gathered by means of historical research rather than through archaeological excavation, the site is not archaeologically important under CEQA. Any unmitigated impact to an important archaeological resource is considered significant. Under Appendix K criteria, an "important archaeological resource" is one that:

- A. Is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory.
- B. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions.
- C. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.
- D. Is at least 100 years old and possesses substantial stratigraphic integrity (i.e., it is essentially undisturbed and intact).



E. Involves important research questions that historical research has shown can be answered only with archaeological methods.

Federal guidelines for evaluating the significance of archaeological and historical resources are the criteria for inclusion in the National Register of Historic Places (36 CFR 800). These guidelines, codified in federal law (36 CFR 60.4), are summarized below:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association and:

- 1. That are associated with events that have made a significant contribution to the broad patterns of our history, or
- 2. That are associated with the lives of persons significant in our past, or
- 3. That embody the distinctive characteristics of a type, period, or method of construction, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- 4. That have yielded or may be likely to yield information important in prehistory or history.

Both State and federal guidelines acknowledge that, aside from archaeological and historical values, cultural resources can be significant for their cultural or religious values (e.g., cemeteries and sacred places). The federal Native American Religious Freedom Act of 1979 provides protection for sites of Native American sacred significance, and State laws promulgated under SB 297 (1982) prescribe specific treatment for Native American human remains discovered during excavation.

May 15, 1992



Impact #3.15-1: Potential for disturbance or destruction of cultural resources within the Paradise Planning Area.

Conclusion: It is known that cultural resources exist within the Planning Area, and the potential exists for significant impacts to occur if development, redevelopment, and construction were unregulated. However, the policy statements and implementation measures that are incorporated in the proposed *Paradise General Plan*, and compliance with Appendix K of the *CEQA Guidelines*, will reduce these potential impacts to a level which is less than significant.

Appendix K of the CEQA Guidelines is fairly explicit on mitigation measures for cultural resources. It addresses treatment of human remains under State law and limits on archaeological excavation as mitigation. These limits do not apply to test excavations for evaluating significance. Mitigative excavations shall only be conducted by qualified professional archaeologists, who must prepare an excavation plan prior to the procedure to narrowly focus the excavation on recovery of data that will enable them to address specific, scientifically consequential research questions.

When human remains are excavated, either by archaeological procedures or during construction, the County coroner must be notified immediately to determine whether the remains require investigation of cause of death. Once it is determined that the remains are of Native American origin, the State Native American Heritage Commission must be notified immediately. The Commission will identify the Native American group or individuals who are the most likely descendants of the deceased Native Americans. The descendants will then negotiate with the landowner, archaeologists, and the lead agency to ensure dignified treatment of the remains according to the customs and wishes of the descendants. The Commission will mediate such negotiations, if necessary.

In accordance with the *CEQA Guidelines*, archaeological data recovery excavation as a mitigation measure should be reserved as a last resort. This is both because of the potential expense involved, and because it is the first responsibility of archaeologists to preserve and protect resources rather than disturb them through excavation.



Other means of mitigation include avoidance, redesigning a project to leave the resource in an undeveloped portion of the site, preservation easements or other land use set-aside, constructing a substantial enclosure (such as a locked fence) around the site, or covering the site with at least two feet of clean fill or pavement. If the site is to be covered, filling or paving should proceed from the perimeter of the site inward, so that heavy equipment will not directly contact the site surface. Compression will impact the site. Once an archaeological site is covered, any land use that will not entail excavating beneath the covering will be allowable. Other measures, as appropriate, will be recommended by a qualified, professional project archaeologist or historian.

The proposed policy statements and implementation measures which are incorporated in the *General Plan* which will reduce impacts on cultural resources are as follows:

Land Use Element

LUP-79 The Town shall encourage retention of identified historically important buildings and other resources of historic significance located in the Central Commercial area.

Open Space/Conservation/Energy Element

OCEP-44 The Town shall encourage retention of identified significant historic buildings and other important cultural resources.

OCEP-51 The Land Use Constraints Diagram identifies areas of potential archaeological sensitivity. Proposed development or public works projects within this area shall be required to undertake an archaeological survey prior to project approval. Proposed projects outside this area, in locations that have not been significantly disturbed, shall be referred to the California Archaeological Inventory, Northeast



Information Center, California State University, Chico to undertake an archaeological survey prior to project approval upon recommendation by the Center.

OCEI-26 Undertake a program of identification and cataloguing of historic resources, including those in the Central Commercial area, for use in future planning efforts.

- Establish a historic register and historical society.
- Provide tours and plaques for historic structures/sites.
- OCEI-28 Amend the *General Plan* to include the list of historic structures, as appropriate.
- OCEI-29 Require compliance of all development projects with Appendix K of the Guidelines for Implementation of the California Environmental Quality Act.
- OCEI-30 When an archaeological survey is required by the Town or recommended by the California Archaeological Inventory, Northeast Information Center, the survey shall be undertaken by a qualified professional archaeologist who is certified by the Society of Professional Archaeologists or has equivalent qualifications.
- OCEI-31 Should any historic or pre-historic artifacts be discovered during construction, all work shall cease until a qualified professional archaeologist views the site, provides recommendations and gives clearance to continue.

Because all construction, development and redevelopment must be in compliance with these policies, implementation measures and regulations, this impact is found to be less than significant and no mitigation measures are required.



Impact Evaluation Criteria for Scenic Resources: The Environmental Checklist Form in Appendix I of the *CEQA Guidelines* provides two criteria for evaluating impacts on scenic resources:

- Obstruction of any scenic vista or view open to the public
- The creation of an aesthetically offensive site open to the public view

Impacts which meet either or both of these criteria should be considered significant.

Impact #3.15-2: Potential for land development and construction, and construction or improvement of public works projects in accordance with the *General Plan* to obstruct scenic vistas or create an aesthetically offensive site open to the public view.

Conclusion: The Planning Area is rich in scenic resources and scenic vistas. The potential exists for significant impacts to occur if development and construction were unregulated. However, the policy statements and implementation measures that are incorporated in the proposed *General Plan* and the regulations of the Town Subdivision Ordinance, Improvement Standards, the Tree Ordinance and the Zoning Ordinance (sign ordinance) will reduce these potential impacts to a level which is less than significant.

The proposed policy statements and implementation measures which are incorporated in the *General Plan* which will reduce impacts on scenic resources are as follows:

Land Use Element

LUP-66 The Town shall revise and update appearance and architectural design guidelines/standards for land use development in the Central Commercial area.

LUP-67 Architectural compatibility with the adopted Town theme shall be required in the Central Commercial



area, including compatibility between new and old structures.

- LUP-68 Commercial structures shall be limited to a height no greater than 35 feet.
- LUP-69 Moderate and large-scale commercial parking areas shall be appropriately screened and landscaped utilizing native, drought-tolerant and low maintenance plant materials.
- LUP-71 The Town shall endeavor to create scenic gateway areas that are eye-appealing and representative of the Town at general locations as depicted on the Land Use Diagram.
- LUP-72 The Town shall support the retention of open space and natural features along Skyway between Paradise and Chico in order to maintain a scenic entrance to the community.
- LUP-73 The Town shall establish a common design theme for gateway areas, including distinctive signing and a tie to the Town theme.
- LUP-74 The Town shall direct its efforts toward elimination of unsightly collections of vehicles and other aesthetically adverse materials near the entrances to the community.
- LUI-40 Revise and update design guidelines for architectural, site and landscaping design in the Central Commercial area, including parking lots.
- LUI-43 Apply appearance guidelines/standards to existing development in the Central Commercial area when permits for remodeling or expansion are applied for.



LUI-44 Establish special land use controls in gateway areas to assure that development that is unsightly or out of character with Paradise is discouraged, and amend Town ordinances as necessary.

LUI-45 Identify funding sources and specific properties for establishment of scenic gateway areas.

Open Space/Conservation/Energy Element

OCEP-14 View sheds and natural areas along Skyway shall be protected.

OCEP-9 Pentz Road and State Highway 191 between the south town limits and the southern boundary of the Tertiary Planning Area shall be designated as scenic highways.

OCEP-10 The Skyway between the southwest town limits and the westerly boundary of the Tertiary Planning Area shall be designated a scenic highway.

OCEP-12 New billboards exceeding 100 square feet in size shall not be permitted within town limits. No new billboards shall be permitted within designated gateways or scenic highway corridors.

OCEP-15 Views of development from other properties shall be considered when making decisions on compatibility of development.

OCEP-16 The Town shall strive to locate new buildings and other structures, including utility lines, that would otherwise block vistas or degrade the natural landscape, outside of scenic view corridors.

OCEP-17 Ridgeline development shall be carefully reviewed to assure a minimization of proposed structures that intrude into the view-line of nearby roadways and properties.



OCEP-18 Well-designed development that will be harmonious with its setting and/or enhance the Town's image shall be encouraged.

OCEP-21 The undergrounding of existing utility lines shall be encouraged.

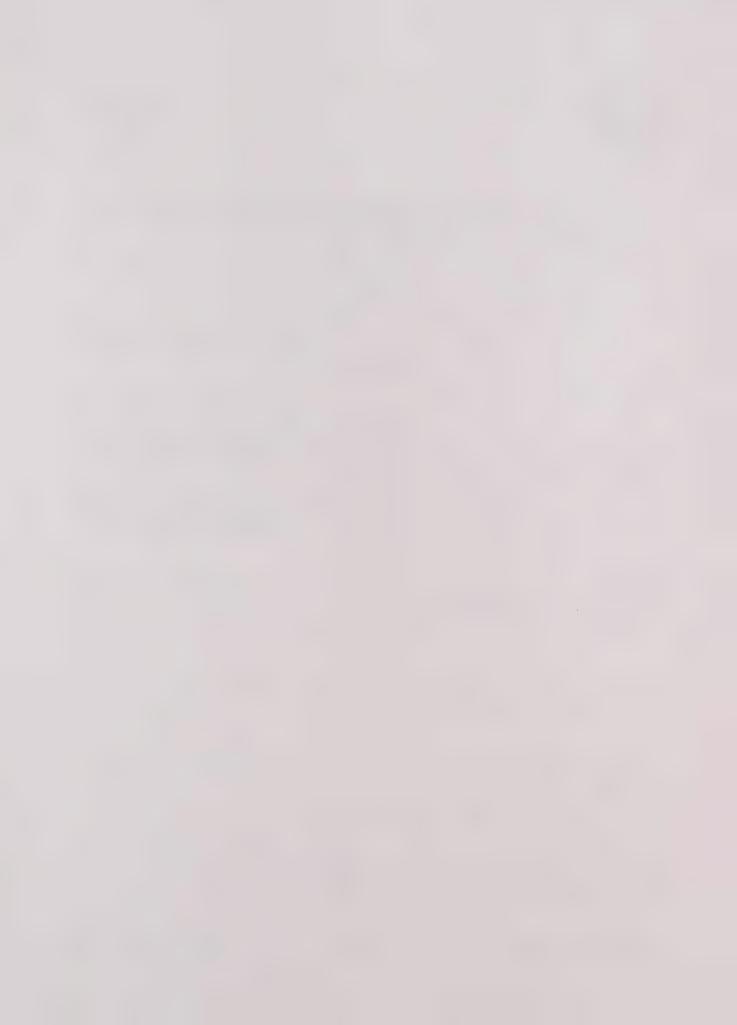
OCEP-35 The Town shall explore a cooperative venture with Butte County to enhance public access to Lookout Point along the Skyway.

OCEI-12 Prepare and adopt land use regulations and development standards intended to maintain the integrity of the scenic highway designation for Pentz Road and lower Skyway, and State Highway 191.

OCEI-13 Locate transmission and utility lines in designated gateways or scenic highway corridors where they may be concealed by vegetation or topographical features.

Mitigation Measures:

Because no significant impacts have been identified, no mitigation measures are required.









CHAPTER FOUR PROJECT ALTERNATIVES

4.1 <u>ALTERNATIVE GENERAL PLAN CONCEPTS</u>

An integral part of the early preparation of the *Paradise General Plan* was the identification and intensive consideration of four alternative land use and circulation concepts for the Paradise Planning Area. These alternatives were developed by the four subcommittees of the General Plan Revision Steering Committee. The purpose of this consideration was to identify reasonable alternative development and conservation possibilities for the area, in view of community priorities and values, and in relationship to identified issues, constraints and opportunities. CEQA and the implementing *State CEQA Guidelines* (Section 15126(d)) mandate that such alternatives to the proposed Plan be discussed in this EIR. The value of such discussion is to inform public decision-makers of the differential environmental impacts which might be associated with each potential alternative, and to enable a reasoned judgement to be made regarding whether some alternative to the proposed Plan might be environmentally superior.

The alternative land use proposals for the Planning Area which were considered during the early Plan formulation stages are conceptually illustrated in Figures 4-1, 4-2, 4-3 and 4-4 (inserted separately). These alternatives were considered prior to selection of a preferred alternative, which is the basis for the proposed *General Plan*. It encompasses some features from all four alternatives, but also incorporates some new features.

With respect to each of the aspects of the environment discussed in the preceding chapter of this EIR, the differential potential impacts of the various land use alternatives considered during the Plan preparation process have been described and evaluated to the extent possible, given the conceptual nature of these alternatives. Many of the proposals contained in these alternatives have been incorporated in the proposed *General Plan*. In addition, the "no-project" alternative and an alternative involving a different planning area are evaluated below. The final section of this chapter presents an assessment of the comparative environmental superiority of all the project alternatives.



4.2 THE NO PROJECT ALTERNATIVE

The State CEQA Guidelines mandate that the "no project" alternative be considered in an environmental impact report. The Guidelines further stipulate that when the no project alternative is environmentally superior, the EIR shall also identify an environmentally superior alternative among the others considered for the project. In this section, the environmental effects of the no project alternative are identified and discussed.

State law requires every city and county to adopt a general plan. If the proposed Plan or some alternative plan is not adopted, the existing *Paradise General Plan*, adopted in 1982 for a ten-year planning period, will remain in effect. As time passes, that Plan will become increasingly outdated and non-responsive to current needs. According to the *State General Plan Guidelines*:

The general plan should be reviewed regularly regardless of its horizon, and revised as new information becomes available and as community needs and values change. Unless it is periodically updated, a plan will become obsolete in the face of community change. A general plan based upon outdated information and projections is not a sound basis for day-to-day decision making and may be legally inadequate... A jurisdiction is expected to make running changes to its general plan as they are necessary. (p. 13-14).

In addition, maintaining the existing Plan would cause the Town to forego the opportunity to preserve and enhance the environment through new Plan policies. While the Town of Paradise could choose not to adopt the proposed *General Plan* and maintain the existing Plan, such an approach would be inconsistent with State law and is not feasible or realistic.

4.3 ALTERNATIVE LOCATION

One CEQA reference (Guide to the California Environmental Quality Act (CEQA), Remy, et. al., Solano Press, 1991) identifies several circumstances which might trigger the requirement to analyze alternative locations for the project, based on CEQA case law. These include instances where a legislative action is being sought to change the allowed use for the proposed project (such as a zone change); in cases where



development at an alternative site would substantially diminish or avoid significant impacts of the proposed project; and also, when policy decisions are being made about where to locate particular land uses in the context of large geographic areas. The latter circumstance clearly applies to adoption of a general plan.

Because the Town of Paradise is required by law to prepare and adopt a general plan, there is no question but that a plan must be adopted for the geographic area within the Town limits. However, the proposed *Paradise General Plan* encompasses a larger geographic area as its Planning Area. This discussion evaluates the selection of the proposed Planning Area, as opposed to an alternative Planning Area Boundary such as the existing Town limits. The existing *Paradise General Plan*, adopted in 1982, covered only the area within the Town limits at the time of adoption.

State law provides that, in addition to covering all territory within the municipal boundaries, the general plan must cover "any land outside its boundaries which in the planning agency's judgement bears relation to its planning" (government Code Section 65300), since certain issues are not confined to political boundaries. As stated in the *State General Plan Guidelines*, "Cooperative "extraterritorial" planning can be used to guide the orderly and efficient extension of services and utilities, ensure the preservation of open space, agricultural and resource conservation lands, and establish consistent standards for development in the plans of adjoining jurisdictions" (p.6).

The Guidelines further state that, when determining its planning area, each city should consider its sphere of influence. The Secondary Planning Area identified in the Paradise General Plan is the same as the Sphere of Influence adopted in 1985 for the Town of Paradise by the Butte County Local Agency Formation Commission (LAFCO). According to the Guidelines, although there is no direct statutory link between the sphere and the planning area, the former provides a convenient measure of the city's region of interest. The Secondary Planning Area includes, to the north, the unincorporated communities of Magalia and Paradise Pines, whose development impacts the Town of Paradise; and to the south, the existing airport and proposed site of portions of the future wastewater treatment infrastructure.

Alternative planning areas to the east and west are unrealistic due to extremely steep terrain and waterways. While the Planning Area could be limited to the Town limits, such an action would be contrary to the intent of State law and the *General Plan Guidelines*. It would also not assist with directing development occurring in the



unincorporated area; there would simply be less assurance that such development would provide for the "orderly and efficient extension of services and utilities, ensure the preservation of open space, agricultural and resource conservation lands, and establish consistent standards for development in the plans of adjoining jurisdictions."

The Tertiary Planning Area, while extending beyond the Secondary Planning Area to the southwest, is not an area proposed for growth and development in the *Paradise General Plan*, other than portions of the future wastewater treatment infrastructure. It is an area for which the Town is proposing to adopt policies regarding its potential development under the auspices of Butte County. Because of its proximity to Paradise, its function as a gateway to the community, and potential future opportunities, the Town is attempting to influence land use activity in this area through adoption of policy statements in the *Paradise General Plan*.

4.4 ALTERNATIVE GENERAL PLAN SCENARIOS

ALTERNATIVE PLAN #1

<u>Description</u>. The members of Subcommittee #1 agreed that the Town of Paradise should capitalize on its unique attributes, and that the *General Plan* should provide the tools to make that happen. No need was seen for any major changes in the existing *General Plan* land use map; rather, it should be built upon, and enhanced by, the issues highlighted in the goals, objectives and policies for this alternative (refer to Working Paper #2, *Issues, Goals, Objectives and Policies*, Chapter 1). Please refer to Figure 4-1, Alternative Plan #1, for a map of this alternative.

This alternative identified the selection and implementation of a Town theme as the most important outcome of the *General Plan*. It would apply to new and remodeled commercial structures, as well as public facilities and improvements. This theme would focus upon the Town's unique rustic and historical features (including the Paradise and Magalia railroad depots, and the old Victorian hotel on Birch Street). This theme should be implemented through a cooperative, incentive-based program (such as redevelopment), rather than a punitive or authoritarian approach. Promotion of this theme would help to promote the economic development of the Town and tourism. Related to this was a strong interest in the preservation of trees and a reforestation program, and the creation of a Town arborist or tree specialist position at Town Hall, enhancing one of the Town's



unique features. Other features to be protected included canyons, watercourses, vistas, scenic highways, ridgelines, and access to rivers and streams.

This alternative assumed a slow, managed rate of growth. New development must pay its own way and be linked to the availability of public services and facilities. Toward this end, this alternative recommended that consolidation or acquisition of the library, Paradise Irrigation District, and other special districts be studied. No consensus was reached regarding a preferred direction or boundaries for any new growth that did occur. However, this alternative provided for the annexation of developed areas of Paradise Pines to the Town of Paradise, and initiation of a "tiered" annexation of all land within the current Sphere of Influence (Secondary Planning Area) within one year, in the following manner:

TIER #1. Annexation of developable lands along the three major roadways serving the Town from the south.

TIER #2. Annexation of all other lands within the southern portion of the current Sphere of Influence.

In addition, this alternative called for initiating the expansion of the current Sphere of Influence to coincide with the Tertiary Planning Area boundary.

New commercial development was proposed to occur in centers or nodes, although it was recognized that existing strip commercial development would remain, for the most part. Infill development should be promoted (through redevelopment and other means) in what was defined as the "heart" of the Town: the area between Skyway, Bille, Clark and Elliott. High density residential development (including residential care facilities and senior citizen housing) should occur on available sites in proximity to commercial development, allowing residents to walk and bike to commercial centers.

Areas proposed for industrial development included an expansion of the existing industrial park along Clark Road, the airport, and an area along Neal Road. Other notable features of this alternative included protection of the airport from encroachment by incompatible uses, continued operation of the golf course (possibly through acquisition), creation of attractive southern gateways into the Town, and conversion of the junkyard along lower Skyway to a Park and Ride facility. To promote safety,



recreation and an alternative to the automobile, this alternative proposed a continuous system of bike paths and trails linking schools, parks, commercial and residential areas.

With regard to circulation system improvements, this alternative called for studies to be performed to determine the feasibility and appropriateness of the following improvement projects:

- Extension of Buschmann Road to Skyway
- Extension of Forest Service Road to Skyway
- Conversion of Almond Street and Skyway to one way streets
- Creating additional connections north to Paradise Pines, from the west side area to Skyway, and from the southern portion of Town to a major Town-owned street.
- Within 3 to 5 years, study the area between Bille Road and Pearson Road for a possible connection to Pentz Road.

Evaluation. Given the constraints presented by existing development, topography, and other characteristics of the physical environment, which would be difficult to alter, Alternative Plan #1 represented a pragmatic approach to the future physical development of the community. By proposing to build upon and enhance existing community strengths, this Plan would minimize potential disruptions and costs which might result from implementing major changes in land use patterns. Many of the proposals contained in this alternative have been incorporated in the proposed *General Plan*.

The alternative assumed a slow, managed rate of growth commensurate with the Town's and special districts' ability to provide necessary services. However, this alternative did not provide a recommended direction(s) for growth. Not establishing a preferred direction theoretically allows for a maximum of development opportunities. However, it does not provide for potential cost savings or minimizing environmental impacts which could be achieved by planning for growth. The Town and other service providers could potentially provide infrastructure and services more efficiently and in a more environmentally sound manner by planning the location of sewer and water lines,



storm drainage facilities, roads, schools, etc. One of the expressed goals of this alternative was to "Provide cost-effective public services in the community", and it was recommended that a feasibility study be undertaken regarding consolidation or acquisition of special districts.

A feasibility study for the annexation of the Paradise Pines area was also proposed, but it was recognized that annexation would be difficult to achieve. The proposal to initiate annexation of the entire Sphere of Influence within one year would represent a large commitment of Town staff time and resources. Because the Town would have to demonstrate to the Local Agency Formation Commission that it had the ability to provide services to the area proposed to be annexed, it is probably also infeasible to annex the entire area at this time. However, increasing the size of the Town's Sphere of Influence ("ultimate growth boundary") would represent a first step in planning for eventual annexation of these areas.

Alternative Plan #1's proposal to capitalize on and enhance the Town's assets could be implemented through a variety of methods. Adherence to a theme suggests a design/architectural/sign review and enforcement process, which would require additional staff time and a new citizens committee. Economic development, infill development and downtown revitalization would have the potential to increase payrolls and stimulate additional spending in the Town. Redevelopment could simultaneously function as a means of implementing these activities and as a source of additional tax revenues. This alternative also included some specific recommendations regarding properties for which redevelopment would be suitable. The alternative assumed that a stronger Chamber of Commerce, with better funding, was a key to implementing many of its proposals.

This alternative proposed that single family residential lot sizes range from 1/3 to 2/3 acre. While such a density is low in the context of most California cities, it is compatible with existing development and the topography of Paradise. The larger the lot size, the greater costs will be associated with residential sewer service. It was also proposed that high density residential development (including residential care facilities and senior citizen housing) be located on available sites near commercial development. This would allow residents to walk and bike to shopping areas, and assure that the sites could support this density of development by having access to sewer service and roads to accommodate that volume of traffic. The difficulty with such locations involves the small number of available sites and the opposition frequently encountered from established neighborhoods.



The areas proposed for industrial development probably represent the only realistically available areas within the Primary and Secondary Planning Areas. Development along Neal Road would result in substantial traffic impacts and could require widening or, at a minimum, requiring Neal Road to be improved to major collector or arterial roadway standards. The intersection of Neal Road and Skyway would require realignment and signalization.

Redevelopment/infill of the Clark/Skyway/Elliott/Bille "superblock" could provide opportunities for developing improved off-street parking and circulation, thus solving some of the current circulation problems along these roadways. If the proposed one-way couplet of Skyway and Almond Street were considered for implementation, its impacts on the circulation system for the entire superblock should be studied. Internal access would need to be provided (Oakwood, Beech, Fir and Foster should be studied) and Foster Street should be cul-de-sacced at its north and south ends in order not to interfere with the circulation of the one-way couplet. The one-way couplet proposal is further evaluated below. The concept of internal access between adjoining commercial uses, with limited access to major roadways, offers opportunities for additional circulation improvements. As this concept could be applied along Skyway and Clark Road, existing on-street parking could be eliminated to provide room for new roadway capacity, without reducing circulation and/or joint use of parking facilities provided off-site under current Town off-street parking regulations.

With regard to the natural environment, this alternative proposed to preserve and enhance the Town's natural assets. It proposed reforestation and preserving and restoring stream courses to their natural state. The alternative also recommended that development, improvement and landscaping standards take into account Paradise's unique environmental, physical and historical character. This alternative proposed to improve the natural environment by prohibiting leaf burning and establishing mandatory refuse collection and recycling.

To provide a continuous system of bike paths and trails could require widening some of the major arterial and collector streets within Paradise. Linkages with the north/south Paradise Memorial Trail might require sidewalks and/or expanded roadway shoulders to provide adequate space and separation between bicycles and vehicles. Alternatively, a set of bike routes (linkages within the bike system which use public streets) could be adopted. Bike routes allow for joint use of travel lanes by automobiles and bicycles. Additional parks and recreational programs are proposed; such services



and facilities are now provided by the Paradise Recreation and Parks District. Use of trails and pathways for a combination of pedestrian, bicycle and equestrian traffic may create conflicts and be difficult to manage and regulate.

Conversion of the "junkyard" along Skyway to a park-and-ride facility offers a real opportunity to enhance public transit use. Any intercity public transit services should be modified to serve the new park-and-ride lot. A proposed bypass to Skyway at the northern end of Paradise (e.g. northwest from the intersection of Skyway and Clark Road) might prove beneficial in splitting traffic between Skyway and Clark Road south of this point. There does not appear to be another bypass option to the south of the Skyway/Clark intersection unless a designation of Skyway to Clark Road to Pearson Road to Skyway were adopted, with substantial traffic control measures along Skyway and the east-west streets serving the downtown.

The proposed one-way Skyway/Almond Street couplet offered an opportunity to increase the directional capacity of the two streets in the downtown area, and also afforded the opportunity to create diagonal on-street parking on Almond Street if desired. The northbound traffic should use Almond Street and Skyway should accommodate southbound traffic. In order for the couplet to work, modifications would need to be made to the existing street system to connect the two streets at the north and south ends of downtown. Options at the north end included creation of a "Y" intersection connecting with Luther Drive, or use of Elliott Road as a connector. Elliott Road was a less optimal alternative due to its current function as a major arterial and the need to make modifications to the northeast corner of Elliott and Skyway for the connection to function properly. At the south end, the connection could be made either at Pearson Road or Black Olive; however, the Black Olive option would require some extensive right-of-way acquisition and intersection modifications. The Pearson Road alternative would also require some prioritizing of turn movements from Skyway to Pearson to accomplish this.

Possible westerly connections from Crestview or Pinewood should only be provided if Oliver Road and/or Valley View Drive were over capacity. New connections would be expensive to build and could encourage development to the south along the ridges these roads serve. They both would need to connect to Honey Run Road, which currently has constrained capacity, and connection to Elliott Road might prove more feasible.



ALTERNATIVE PLAN #2

<u>Description.</u> The members of Subcommittee #2 emphasized the importance of preserving Paradise's physical environment, while at the same time promoting the economic development of the Town. Please refer to Figure 4-2, Alternative Plan #2, for a map of this alternative. While there was no need for major changes in the existing *General Plan* land use map, the amount of parks and open space should be increased, especially in areas which are already developed where there are few parks. Areas unsuitable for septic systems might be candidates for parks and open space. Additional small parks should be developed throughout the Town within the next 15 years. There was a strong interest in the protection of stream courses and the watershed. Remaining agricultural lands should also be preserved.

This alternative included a number of proposals for enhancing the economic development of the Town, consistent with the protection of the environment, as outlined in Working Paper #2, Issues, Goals, Objectives and Policies. There should be a townwide theme applied to new and remodeled commercial structures, based on the Town's rustic character. This theme should be enforced through design standards and a process of review and approval of architectural styles, signs and colors. Other proposals included development of a conference center/destination resort, events that attract tourists, expanded shopping opportunities, and a farmers market. A gateway concept was proposed that would include the establishment of a scenic information park, complete with canyon viewing areas, parking, and a visitor center with information about the Town of Paradise and the surrounding area. A Redevelopment Plan should be adopted to assist with economic development, and the Town should consider participation in the Main Street program.

Growth should be linked to the availability of services and facilities, especially the available water supply, and should not exceed an annual rate of 1.5 percent. New growth and development should occur to the south (including the Lime Saddle area) and be annexed to the Town. Services would need to be provided, including schools, a new fire station, and an adequate water supply. The sewer system should be planned to serve the entire Town within 15 years. This alternative also proposed the annexation of developed areas in Paradise Pines, while recognizing the potential difficulty of obtaining the support of the residents for annexation.



This alternative proposed several modifications to improve the existing circulation system. These included the extension of a number of east-west roads (Elliott, Buschmann, Nunneley, Roe, Wayland, downtown streets) to connect to Clark and/or Skyway, and the creation of a bypass to Skyway (at least for emergency use). Pentz Road should be designated a scenic highway. The Town should explore ways to recover costs associated with use of the roadways by residents of the Upper Ridge if annexation is not feasible. Sidewalks in selected areas and other safe pathways for bicyclists and pedestrians on Town-maintained streets were of special concern. A trail system should be established in the southerly portion of the Secondary Planning Area to take advantage of the canyons and significant cultural resources in that area. Alternative forms of transportation should be encouraged and supported over the next 15 years to improve traffic circulation and air quality in the Town and the region.

While recognizing that most existing commercial uses along Skyway and Clark would remain, this alternative proposed that new commercial development should occur in centers, and as infill in older areas. Infill, including second story "mixed uses", should be encouraged in the area between Pearson, Elliott, Skyway and Black Olive. New commercial development should be architecturally compatible with the Town theme.

Areas proposed for industrial development included the airport (which should not be permitted to expand), along Highway 99 (in the long term), and in suitable locations along Neal Road (protecting archaeologically sensitive areas) and Clark Road. High density residential development should be located where roads can accommodate the traffic generated by such developments, and retirement facilities should be located close to services. Multiple family developments should be low density in nature (duplexes, triplexes and fourplexes).

Evaluation. Alternative Plan #2 can be characterized as focusing upon two major issues: preservation of the environment and economic development. Although it might be argued that the two concepts are mutually exclusive, the proposals in this alternative were, for the most part, internally consistent. In fact, the economic development proposals can be viewed as a means of increasing Town revenues in the long term, which can potentially be used to fund proposed environmental protection measures. As with Alternative Plan #1, many of the proposals of this alternative have been incorporated in the proposed *General Plan*.



The major changes proposed, in comparison with the existing *General Plan*, included the designation of protective vegetative buffers along all streamcourses, trails and bikepaths. The Plan also called for increased parks and open space, linked by trails. The map which accompanies this Plan is very conceptual; feasible locations for such features would need to be determined based on existing development, topography and property lines.

Constructing bicycle lanes on Skyway would require eliminating parking or widening of the roadway. Widening of Clark Road might also be needed to establish bicycle lanes. The costs associated with establishing bike lanes on all Town-maintained roads might also be a concern. The use of trails and pathways for a combination of pedestrian, bicycle and equestrian traffic may create conflicts and be difficult to manage and regulate.

This alternative bears some similarity to Alternative Plan #1 in that it also proposed a Town theme, design review, a redevelopment plan, as well as several specific recommendations, including a destination resort/conference center and gateway/visitor center. Proposals regarding infill development in older areas (defined as the area between Pearson/Elliott/Skyway/Black Olive) and commercial centers, rather than new strip commercial development, were also similar to Alternative Plan #1. Redevelopment and/or infill could provide opportunities for developing improved off-street parking and circulation, thus solving some of the current circulation problems in this area. As a key element of economic development, the Plan recommended that a full sewer system be in place within 15 years, which may not be entirely feasible.

This Alternative Plan also assumed a slow, managed rate of growth (not to exceed 1.5% annually). It was proposed that the area to the south of the existing Town limits, within the Secondary Planning Area, be designated for new growth and development. The advantages of development to the south include its proximity to the proposed sewage treatment plant and the availability of water within the Lime Saddle Community Services District (CSD) boundaries. The Plan recognized that services must be provided to the area as development occurs, such as schools, sewer and water, and an additional fire station. Development to the south would produce a need for expanded or additional capacity along the roadways serving the new development. By annexing this area, the Town would control the development options, access, and of funding the improvements necessary to mitigate impacts.



In addition to the area to the south, this alternative recommended studying the feasibility of annexing Paradise Pines, while recognizing that it may not be possible. With regard to traffic impacts on the Town of Paradise from existing and future development of this area, a joint powers agreement could be developed with Butte County to pay for transportation improvements and create joint benefit traffic impact fees. It was also proposed that Lookout Point be annexed in order to develop it as a parkway and protect it from inappropriate development.

Several potential roadway extensions or connections were proposed, which are described and evaluated as follows:

- The extension of Elliott to Pentz Road should not be linked to Ficket; rather, a potential extension to the northeast should be considered.
- The westerly extension of Buschmann to Skyway should be considered to relieve traffic congestion on Pearson Road between Skyway and Scottwood Road.
- The extension of Roe Road may not provide any overall traffic benefit except to increase the development potential for the areas served by the new connector. The potential for the Roe Road extension to reduce traffic along Pearson Road is questionable due to its width and configuration.
- A bypass to Skyway at the northern end of Paradise (e.g. northwest from the intersection of Skyway and Clark Road) might prove beneficial in splitting traffic between Skyway and Clark Road south of this point. There does not appear to be another bypass option to the south of the Skyway/Clark intersection unless a designation of Skyway to Clark Road to Pearson Road to Skyway is adopted, with substantial traffic control measures along Skyway and the east-west streets serving the downtown is adopted.

This alternative also strongly recommended construction of sidewalks and pedestrian pathways for safety reasons. The Town currently has street standards which include sidewalks and other pedestrian amenities. Streets which need to be brought up to current standards include Skyway north of Bille; Sawmill; Wagstaff; Bille west of Skyway; Oliver Road; Central Park; Elliott east of Clark; Nunneley west of Sawmill; Neal Road south of Skyway; Roe Road; Scottwood; portions of Porter Road; Libby Road and Edgewood Road south of Pearson Road. The proposed expansion of public transit



might require funding by the Town of Paradise or additional allocations of State Gas Tax funding from roads to transit projects.

Alternative Plan #2 proposed industrial development along Highway 99 as a long-term strategy. Due to that area's distance from the existing Town limits, and the statutes and criteria governing annexation, it would be difficult for the Town to gain control of this area within the time frame of the General Plan. However, as a first step, the Town could request that LAFCO amend their Sphere of Influence for Paradise to include this area. Other proposed industrial sites included Neal Road, Clark Road and the airport. Development along Neal Road could result in substantial traffic impacts, and could require widening or, at a minimum, requiring that the road be improved to major collector or arterial roadway standards. The intersection of Neal Road and Skyway will require realignment and signalization.

If Pentz Road were designated as a scenic highway, as proposed, appropriate land use and development controls should be incorporated into the General Plan to implement that designation. This alternative also generally recommended strengthening standards and enforcement of existing Town ordinances regarding home occupations, signs and noise. In order to improve the local environment, the Plan recommended mandatory refuse disposal and recycling and a prohibition on leaf burning, accompanied by a community composting program.

The single family residential density proposed under this alternative was two dwelling units per acre if sewer was not available, and four dwelling units per acre if sewer is available. The latter density is feasible to serve with a sewer system. The Plan recommended that new multiple family development occur at fairly low densities (duplexes, triplexes and fourplexes). This density of development would make excellent infill projects in low density areas and would provide some needed rental housing. However, there is probably a need for some higher density development as well, to take advantage of sewer availability and to make public transit more feasible.

Alternative Plan #2 recommended the preservation of remaining agricultural lands. Preservation limits the development options of property owners and reduces the sites available for development which the Town may want to encourage. However, it does preserve open space, historical associations, and has the potential to draw tourists if promoted (similar to the harvest in the Apple Hill area outside Placerville).



ALTERNATIVE PLAN #3

<u>Description</u>. Subcommittee #3 wished to carefully manage growth to assure that the Townwide infrastructure was in place to adequately serve it. There was also a strong desire that development pay its own way and that planning tools such as development impact fees, assessment districts, and payback strategies be explored and used to assure that adverse impacts to existing service levels did not occur. Infill was encouraged while protection of the physical environment within the community was given a high priority. This included such things as trees, small animals, views, water courses and steeply sloping lands. Present orchards and agricultural uses, however, were not targeted for preservation; instead, such areas were seen as opportunities for community infill. Please refer to Figure 4-3, Alternative Plan #3, for a map of this alternative.

Substantial areas both north and south of Town were proposed for annexation during the planning period in order to facilitate orderly growth and decision-making in the Paradise region. To the north, annexations would encompass areas already largely developed, as well as the Paradise watershed area, and would allow for consolidation of action by government to assure that decisions in one area did not burden another unnecessarily. Such action would also allow for a fairer sharing of the cost of services. To the south, a large and substantially undeveloped area stretching from Neal Road to the Feather River was proposed for annexation, including the Lime Saddle Community Services District.

An area was suggested as an "open classroom" and park adjacent to Butte College. The area would provide an outdoor study area for students studying archaeology, biology, natural resources conservation and other disciplines. It was envisioned that the area would be open to all levels of education, including elementary, high school and college students. It was also proposed that the community's sewage treatment facility be located in this general area in order to put the effluent to beneficial use on the public open space, including creation of wetlands. A nature trail system for pedestrians and equestrians was also suggested.

A Scenic Overlook was proposed below the community along Skyway to contain a small parking lot, guard rails along the cliff areas, short trails to scenic points, and a small sign. An artisans and tourist center containing small shops and crafts was suggested as part of a revitalized central area which was to be located east of Skyway between Pearson and Elliott Roads.



Other commercial activity was to be contained in crossroads centers located at major intersections along Clark and Skyway. Existing strip commercial zoning was to be maintained where it presently exists; however, new strip commercial zoning was to be discouraged. No distinction was to be made between commercial types, with a full range of commercial uses, including professional office, implied by the commercial designation.

Multiple industrial sites were proposed in order to provide opportunities for job generating businesses to locate in Town. These sites included an area along Neal Road likely to be served by a future community sewer and two areas along lower Clark Road within the current Town Sphere of Influence.

Retention of existing single family residential development patterns and densities was viewed as desirable. Multiple family densities were to be targeted into an area in close proximity to the center of the community and accessible to the future community collection sewer system. It was proposed that properties presently designated for multiple family use but which remained undeveloped and were outside the formal sewer system target area, be redesignated for another use.

This alternative suggested that certain actions be taken with regard to circulation, but cautioned that the effect such changes will have on existing residential neighborhoods should be carefully studied. Studies should be performed to determine the feasibility and appropriateness of extending/connecting Buschmann Road to Skyway, and extending Nunneley Road, Elliott Road, or another main east-west street to Pentz Road. It was also proposed that Skyway be rerouted between Bader Mine Road and South Park Road to eliminate an existing dangerous and slow stretch of major road. Finally, the Subcommittee proposed the closure to vehicular traffic of Honey Run Road between Honey View Terrace and the McEnespay Ranch in order to eliminate a poorly maintained and dangerous roadway.

It was proposed that Honey Run Road remain open to pedestrian, bicycle and equestrian traffic and be accessible to emergency vehicles. In general it was proposed that all pathways be equally accessible to equestrians and runners, as well as pedestrians and bicycles.

Evaluation. This alternative placed considerable importance on the availability of necessary services prior to approval of new development. Equal weight was placed on



new development paying its own way. The importance placed on services and cost is sustainable through the *General Plan* process as long as the Plan is carefully crafted to clearly set out the level of service necessary for growth. The methodology for determining future development's "fair share" should also be incorporated into or spelled out in the *General Plan*. Improvement of services may be tied to the revenues generated by future growth, therefore, the community must remain sufficiently flexible to allow enough growth to support the cost of expanded or improved services. The desire to limit growth may in fact be an impediment to improved service levels.

The Subcommittee felt it was desirable to explore consolidation of the Town and the Paradise Irrigation District in order to assure consistency in decision making and the long term availability of an adequate water supply. The Town could be well served by such consolidation which could also give the Town greater influence over activities occurring in the Town's watershed.

Infill was given considerable encouragement even though it might result in the loss of existing in-town orchards. From the perspective of efficiency in land use and service delivery, such an approach is to be commended. The orchards involved are of limited expanse and their long-term viability is problematic. Elimination of orchards, however, does reduce open land and green-space within the community, also a Subcommittee priority.

The annexation of surrounding areas, both developed and undeveloped, is a desirable goal. Annexation of already developed areas to the north might, however, prove exceedingly difficult unless the Town can offer something residents of the area do not already have. The opportunity to share equitably in the cost of services is seldom a motivator for people considering annexation. Vacant lands to the south might be more easily annexable and the community should pursue this as a high priority.

The prospect of creating an "open classroom" and park south of the Town might attract considerable interest. Key to its implementation would be finding a method for financing the venture. Any effort should involve the active participation of Butte College and other educational facilities.

An artisans and tourist area in central Paradise might be the most viable approach for the "redevelopment" of the central area. It is very unlikely that a conventional commercial project has much potential given competing commercial areas and the present



physical configuration of the central area. A properly designed and marketed center of small shops and crafts would be unique in the Butte County region and could draw from more distant areas of California. The concept would also support the Subcommittee's interest in tourism promotion as an economic development tool.

Retention of all existing strip commercial zoning would discourage aggregation of future commercial uses in centers. Additional consideration should be given to limiting strip commercial opportunities by distinguishing between commercial and professional office use, allowing for exclusive designation of some areas for offices. Retail commercial, service commercial and office uses generate substantially different traffic patterns and peak hour impacts. It is desirable to group such uses in order to avoid design incompatibilities and conflicts.

The designation of more than one area for future small industrial activity is a desirable feature. The absence of community sewers might, however, limit the development potential of such sites. The major site shown on Neal Road has considerable potential given its size and future community sewer access. Vehicular access to the site may prove to be a considerable obstacle due to the present character of Neal Road and the distance to other thoroughfares. The proposed industrial development, along with other development, would produce substantial traffic impacts and could require widening Neal Road. The intersection of Neal Road and Skyway would require realignment and signalization.

Policies concerning multiple family and single family development were compatible with other community goals, placing concentrations of people in proximity to the future community sewer while protecting existing neighborhoods. A minimum parcel size was not established for residential use in unsewered areas nor was one established for sewered areas. Parcel size standards and densities need to be expressed in the *General Plan*.

With regard to the natural environment, this alternative places emphasis on the preservation of trees and habitat for small animals but contains few mechanisms for accomplishing this. Two suggestions included in the Plan were that the Town review its present tree preservation regulations to assure that they will sustain and enhance the present forested setting, and the establishment of stream protection zones. The stream protection zone concept is relatively loosely defined and would require more attention.



This alternative also placed emphasis on views and recommended a scenic overlook on Skyway and close review of ridgeline development. Junkyards were also slated for cleanup. All of theses actions were compatible with the Subcommittee's desire to promote Paradise as a tourist destination. Additional regulations would be necessary to fully implement these ideas. The scenic overlook area is presently in the County and would require County cooperation or annexation for implementation.

The extension of existing residential streets to provide more east-west connections is desirable from a circulation improvement perspective. The subcommittee, however, limited such connections, fearing the impact additional traffic would have on existing neighborhoods. The Subcommittee did suggest improvements to north-south circulation through realignment of Skyway between Bader Mine Road and South Park Road. In addition to bypassing a dangerous curve, the alternate route might also prove beneficial in splitting traffic between Clark and Skyway south of this point. There appeared to be no other bypass options south of the Skyway/Clark Road intersection.

With regard to the other roadway extensions suggested for study, the following comments are offered:

- The extension of Elliott to Pentz should not be linked to Ficket, rather a potential northeast extension should be considered. This extension appears more feasible than Nunneley to Pentz and provides a more direct linkage with the hospital.
- The westerly extension of Buschmann to Skyway is very desirable and will help relieve congestion on Pearson Road between Skyway and Scottwood.

The closure of Honey Run Road south of Honey View Terrace appears desirable. The road is substandard and serves a limited number of destinations. Bringing the road up to standard and maintaining it at that level would prove to be cost prohibitive. There would also be expense associated with maintaining it for non-vehicular access.

Several east-west pathways were proposed along existing roads which would link up with the Paradise Memorial Trailway. It was intended that existing shoulder areas be improved and widened. This is a very desirable feature of the Plan but will have improvement costs associated with it.



Pathways within the community are proposed to be accessible to a variety of users: equestrians, runners, bicycles and pedestrians. Such a mix could be hard to manage. Pedestrians, bicycles and equestrians are not necessarily compatible uses.

Within the proposed *Safety Element*, the Subcommittee established service levels for both police and fire protection, linking approval of new development to maintenance of those levels. Providing a measurable service level standard in the General Plan for all services should be a goal of the Town's planning effort in order to avoid future disagreements over what is meant by "adequate levels" of service.



ALTERNATIVE PLAN #4

<u>Description.</u> Subcommittee #4 viewed the Town's growth opportunities as being limited until infrastructure was in place to serve any development. An "Urban Reserve" area was shown south of Town; however, there was significant resistance to continuing growth and greater emphasis was placed on preserving the community as it is. The 1.5 percent per year growth cap was viewed in the context of the entire ridge area and not just the Town of Paradise with some feeling that it would not be undesirable if the growth occurred outside the Town proper. Please refer to Figure 4-4, Alternative Plan #4, for a map of this alternative.

It was believed by some that Paradise is a "bedroom community" to Chico. It was also expressed that tourism should not be promoted but that the Town should promote cultural events that may attract tourists. Most importantly it was felt that Paradise should promote a sense of community for those already here. In this vein, it was proposed that Paradise identify "Gateways" on major roads where signage and a sense of what Paradise is can be reflected. These would be areas with special land use controls to assure that development that was unsightly or out of character with Paradise would be discouraged. Stream protection areas were also identified in which development should be carefully monitored and controlled in order to protect the watershed and character of Paradise.

It was suggested that development for both older and younger age groups be promoted so that a full range of age groups was present. Rather than annex outlying areas, it was suggested that the community work with Butte County to create joint planning and decision-making for the ridge area, possibly through an area Planning Commission or some similar mechanism. There was considerable interest in assuring that decisions were not made by Butte County that frustrate efforts by Paradise to control growth.

Commercial development patterns were to be maintained under this alternative and infill was to be encouraged in existing strips along Clark and Skyway. A substantial area was shown, generally bounded by Skyway, Clark, Elliott and Pearson, as a central commercial area which would allow for some concentration of commercial use in the center of the community. This area formed the center of an "H" with Clark and Skyway forming the verticals. As an alternative to mixed commercial infill along the strips, it



was proposed that some areas be designated as exclusive professional office development areas. Mixed uses (e.g. residential apartments over retail shops) should be permitted and encouraged in the commercial areas, provided no significant adverse impacts would result. No new strips were to be entertained under this alternative.

A single new industrial area was shown along Neal Road south of Town. The site was intended to accommodate industry, if industry sought to locate in Paradise. The site would have access to the future community sewer.

Present residential patterns were to be maintained with higher density areas to be focused along the route of the future sewer and around the central commercial area. The minimum parcel size Townwide in unsewered areas was proposed to be one-half acre, and the maximum height for buildings 35 feet.

A number of suggestions were made concerning circulation and access, including the creation of public access to the Miocene Canal. It was suggested that the Town negotiate with PG&E for such access and propose to pay for the improvements to make access feasible and safe. The Canal was viewed as a prime recreational asset for the Town.

Another circulation suggestion was the creation of a Park and Ride at the upper end of Paradise to reduce through traffic on Skyway from the Upper Ridge.

Road improvements included the connection of several in-Town streets:

- Elliott to Pentz Road
- Buschmann to Skyway
- Roe Road to Bennett Road
- Circle Lane to Edgewood Lane
- Crestview Drive to Skyway
- Newland to Clark Road



Pathways accessible to the public were encouraged and it was proposed that future developments have pedestrian walkways on at least one side of the street.

Evaluation. This alternative could be described as the "existing conditions" alternative, promoting the retention of Paradise as it is. To counter outside pressures that may impose growth on the Paradise region, the alternative suggested a strong working relationship with Butte County to create joint planning and decision-making for the ridge area. It is always difficult to maintain things as they are and it is particularly difficult when dealing with more than one political jurisdiction. The concept of developing a strong working relationship with Butte County, including joint planning and decision-making, is commendable and progressive. Implementation will require hard work and a consensus within the Paradise area.

The alternative did not promote economic activity, viewing Paradise continuing as a place for people to reside, with new job and shopping opportunities probably locating in more distant communities. Although this might maintain the present character of Paradise, it would exacerbate traffic congestion and air quality problems without providing Paradise with important property tax and sales tax revenues to pay for solutions. The approach is also unlikely to result in the establishment of a General Plan and EIR that address issues of housing accessibility, jobs/housing balance and feasible financing programs to pay for the services Town residents desire.

A large mixed use commercial area was shown in the center of the community which was ascribed a community-wide goods and services role and as a focus for visitors. A redevelopment project was also suggested to support the central commercial area concept and a distinctive identity and character was proposed for the central area. It was uncertain, however, what would drive the creation of the central commercial area, particularly since the Subcommittee did not envision an active tourism industry in the community. It is likely that competition from other centers along Skyway and Clark would inhibit the creation of a central commercial area unless a more specific market were identified.

The suggestion that professional office development replace some of the mixed use strip commercial areas could have beneficial impacts on through traffic as well as creating less noise intrusion into abutting residential neighborhoods. The proposal that residences be permitted in conjunction with retail shops in commercial areas (possibly on a second floor) was also worthy of consideration. Placing dwelling units in



proximity to services and in lively and eclectic environments is gaining increasing acceptance. Such development would reduce dependence on the automobile, improving traffic congestion, air quality and community noise levels.

Maintenance of existing residential patterns while focusing higher density areas along the future sewer line and in the community center is consistent with good planning practice and should be supported by the *General Plan*. A one-half acre minimum parcel size was proposed for unsewered areas, while no specific density standard was established for multiple family areas. One-half acre parcels would assist in protecting the health and safety of Town residents in unsewered areas but would have a negative impact on housing affordability. It would be necessary to establish multiple family density standards as a part of further plan deliberation.

The Subcommittee proposed that home occupations be excluded from some neighborhoods where they are clearly incompatible and that present home occupation regulations be reviewed. The Town might have difficulty distinguishing adequately between neighborhoods to exclude home occupations totally while permitting them in other neighborhoods. Zoning categories must also apply equally to all properties, however, an exclusion could be handled through an overlay zone.

If Paradise continued to grow residentially without providing additional jobs and shopping opportunities, traffic levels on a daily and peak hour basis along Skyway, Clark Road and Pentz Road would increase. This in turn would increase demand to widen facilities. Provision of park-and-ride lots, such as the one proposed at the northern end of Paradise, would partially mitigate traffic impacts and should be encouraged.

The Subcommittee proposed to preserve and enhance the Town's natural assets through streamcourse protection areas and through policies protecting trees and wildlife. Additional refinement of these ideas must be carried out and the associated costs ascertained.

Community appearance standards were proposed for signs and commercial and industrial development. No specific theme was suggested for structures, although it was recommended that "gateway areas" have a common design theme which could be tied to a common theme for the central commercial area. Design regulations would require the input of a wide range of community members as well as professionals in the field of construction, design and architecture. If precise enough standards could be written, a



review committee might not be necessary; however, it is more than likely that considerable discretion would still need to be exercised at the time of project review.

The following discussion relates to roadway extensions suggested by the Subcommittee:

- The extension of Elliott to Pentz should not be linked to Ficket, rather a potential extension to the northeast should be considered.
- Connecting Buschmann to Skyway is an important road link that will help relieve traffic congestion on Pearson between Skyway and Scottwood.
- The extension of Roe Road might not provide any overall traffic benefit except to increase the development potential for the areas served by the new connector. The potential for the Roe Road extension to reduce traffic along Pearson Road is questionable.
- The connection of South Libby Road to Edgewood Lane appeared to provide a more contiguous circulation system than a connection from Circle Lane. Circle Lane could be used as an alternate if access from South Libby Road were found to be infeasible.
- A connection from either Crestview or Pinewood Drive to Skyway should only be provided if Oliver Road and/or Valley View Drive are over capacity. These connections would be expensive to build and could encourage development to the south along the ridges they serve. They both would need to connect to Honey Run Road which currently has a constrained capacity. A connection to Elliott would appear more practical if it is feasible to construct.
- Extending Newland Road to Clark Road should be undertaken to relieve traffic along Pearson Road to the east of Clark Road. The connection should be made to Noffsinger Lane rather than a new access point.

A continuous bicycle path system was proposed for the community linking to the existing Paradise Memorial Trailway. To provide a continuous system could require widening of some of the major arterial and collector streets in Paradise to provide adequate room for the pathway. The Subcommittee gave the needs of bicyclists and



pedestrians a high priority recommending greater attention to road shoulders, sidewalks and crosswalks.

Another proposal which might have high community value is public pedestrian access to the Miocene Canal. The outcome would be very dependent on PG&E's cooperation. In addition to access and improvement costs, the subject of safety and liability would undoubtedly need to be addressed.

Within the proposed *Safety Element*, the Subcommittee established service levels for both police and fire protection, linking approval of new development to maintenance of those levels. Providing a measurable service level standard in the *General Plan* for all services should be a goal of the Town's planning effort in order to avoid future disagreements over what is meant by "adequate levels" of service. This alternative also recommends adoption of the full Uniform Fire Code. Compliance and enforcement of the Code would have additional costs associated with it, for both government and property owners; however, these costs would be repaid to the community through reduction in fire hazard and loss.

4.5 COMPARATIVE ENVIRONMENTAL SUPERIORITY OF ALTERNATIVES

In accordance with the State CEOA Guidelines, all reasonable project alternatives have been evaluated to determine their comparative environmental superiority. Based upon this evaluation, it has been concluded that Alternative Plan #4 is the environmentally superior alternative, with some qualifications. Although all four alternative plans developed by the subcommittees incorporated a managed rate of growth and environmental concerns, Alternative Plan #4 proposes the least amount of new growth and development within the Town, and places the greatest emphasis on preservation and enhancement of the natural environment. However, the Town of Paradise does not control growth and development in the unincorporated area surrounding the Town. Adoption of a General Plan based upon Alternative Plan #4 would not prevent incompatible or increased growth from occurring in the northerly and southerly Secondary Planning Area, which could actually result in greater environmental impacts than the proposed General Plan. Development in the unincorporated area would occur without the safeguards, standards and mitigation measures built into the proposed General For this reason, the proposed General Plan should be considered the environmentally superior alternative.







CHAPTER FIVE MANDATORY CEQA SECTIONS

5.1 INTRODUCTION

The California Environmental Quality Act and the *State CEQA Guidelines* require that EIRs include discussion of the following issues:

- The relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity (Section 15126(e))
- Any significant irreversible environmental changes which would be involved in the proposed action should it be implemented (Section 15126(f))
- Growth inducing impact of the proposed action (Section 15126(g))
- Cumulative impacts (Section 15130)

5.2 SHORT-TERM VERSUS LONG-TERM USES

A general plan is by definition a comprehensive, long-term plan for the physical development of the community. According to the *State General Plan Guidelines*, it is long term in two senses: (1) it establishes goals and projects conditions and needs into the future as a basis for determining objectives; and (2) it establishes long-term policy for day-to-day decision making based upon those objectives. The proposed *Paradise General Plan* has established a planning period of fifteen years. The EIR for the *General Plan* is in fact an assessment of the long-term cumulative impacts of development on the environment in accordance with the Plan.

As discussed in Chapter Three of this EIR, the conversion of undeveloped land and open space to urban uses represents a long-term commitment to a change in use as specified in the Plan. All such development must take place in accordance with the policies of the *General Plan* and mitigation measures approved as part of this EIR.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

As noted in Section 5.2 above, adoption and implementation of the proposed *Paradise General Plan* would result, over time, in the conversion of currently undeveloped land and open space to urban uses, although significant areas of open space will remain within the Planning Area. While generally considered permanent, such conversion is not a direct adverse impact. The secondary environmental impacts of such changes in use are analyzed in Chapter Three. Secondary impacts which are generally considered irreversible and significant include loss of wildlife habitat and increased water consumption.

5.4 GROWTH-INDUCING IMPACTS

Any general plan which plans for and accommodates future urban development may be considered "growth-inducing". Table 3.1-1 provides information regarding future population and dwelling units upon buildout of the *General Plan* at prescribed population density and land use and building intensity. The impacts of such buildout are assessed in Chapter Three. The *Paradise General Plan* is intended to be growth-accommodating, as opposed to growth-generating. The *General Plan* has been designed to maintain and enhance the environment as growth occurs through policy statements regarding adequate public facilities and services and protection of natural resources.

5.5 **CUMULATIVE IMPACTS**

As noted in Section 5.2 above, this EIR is by definition an assessment of the cumulative impacts of development in accordance with the proposed *Paradise General Plan*. It is an assessment of the environmental effects of full buildout of the *General Plan*, including existing and proposed development, and future development in accordance with the Plan. Because the actual nature of future developments cannot be known at this time, the EIR is by necessity not as detailed as an EIR on the specific construction projects that might follow, but instead focuses on the secondary effects that can be expected to follow from *General Plan* adoption (*State CEQA Guidelines* Section 15146(b)). This EIR identifies the following significant cumulative impacts:

- Air quality
- Increased water consumption

Table 5.1-1 identifies those projects in the Town of Paradise that have already been approved (but not constructed) or that are currently under consideration. The environmental documents for the previously-approved projects are incorporated by reference in this EIR.

In addition to planned projects within the Town of Paradise, development in the unincorporated area of Butte County and in the cities of Chico and Oroville is addressed

TABLE 5.1-1 TOWN OF PARADISE PROPOSED AND APPROVED PROJECTS

Proje	ect Name	Acreage/Lots/ Units	Status	Date Approved
S-1-87	Fraser	11 lots	Expired	3-14-88
S-1-88	Hoilland	9 lots	Map Recorded	6-13-88
S-2-88	Feather River Hospital	32 condos (commercial)	Map Recorded	5-9-88
S-3-88	Schott	9 lots	Map Recorded	9-12-88
S-4-88	Miracle Construction	2 lots	Expired	10-24-88
S-2-89	Hall	6 lots	Map Recorded	8-28-89
S-3-89	Strauss	13 lots		12-11-89
S-4-89	Thacker	9 lots	Map Recorded	1-8-90
S-5-89	Bolin	36 lots	Map Recorded	3-12-90
S-6-89	Donaldson	15 lots	Map Recorded	2-26-90
S-7-89	Point West	13 lots		10-16-90
S-8-89	Marjama	6 lots		7-9-90
S-1-90	Freestone	10 lots	Map Recorded	4-23-90
S-2-90	Kasza	41 lots		4-8-91
S-3-90	Paradisewood Estates	21 lots		

Projec	ct Name	Acreage/Lots/ Units	Status	Date Approved
S-4-90	Acorn Ridge Units 4-7	32 lots		6-25-90
S-5-90	Canterbury	11 lots		7-9-90
S-6-90	Perko	10 lots		12-10-90
S-7-90	Cobblestone	Condo conversion	Map Recorded	12-10-90
S-1-91	Paradise Partners	177 lots		
UP-20-88	Paradise Manor Senior Care	114 living units		1990
SPR-5-89	Oak Knoll Estates Retirement Home			9-11-89
UP-12-90	West Recreation Center	N/A		4-22-91
SPR-13-90 UP-15-91	K-Mart Expansion	N/A	Under construction	2-25-91 11-18-91
SPR-2-89 SPR-10-91	Albertson's Expansion	N/A		2-27-89 6-10-91
UP-24-87	Plantation Mobile Home Park	100 spaces (Mobilehome units)		
SPR-11-91	Sierra Builders	10 units		8-26-91



in their respective general plans. The Butte County General Plan is summarized in Section 16.1 of Volume III, Environmental Setting. Butte County is in the process of a comprehensive general plan update. Current policy has established an Urban Reserve policy south of the town limits, in the Secondary Planning Area. This policy limits development and provides for coordination with the Town regarding land use, zoning, subdivision of land and development standards. North of the town limits, in the Paradise Pines area, there is currently a moratorium in effect on new divisions of land. However, "buildout" development of existing lots of record continues to impact water quality and the circulation system of the Town of Paradise, as described in Chapter Three.

The City of Chico is also beginning the process of a comprehensive general plan update. The impact of development in the City of Chico on the Town of Paradise is largely related to the extent that Paradise residents travel to Chico for employment and shopping. The policies of the proposed *Paradise General Plan* have been designed to create more shopping and employment opportunities in Paradise, and to encourage use of alternative modes of transportation for those trips which are made. The other issue which involves the City of Chico is the proposal which has surfaced previously for a large-scale development of Nance Canyon, which is within the Tertiary Planning Area. This development was initially proposed within the Butte County unincorporated area and may now be under consideration for annexation to the City of Chico.

The City of Oroville is currently in the process of revising its General Plan and adoption is anticipated in late summer of 1992. Although still in the process of formulating the plan, the City's steering committee has proposed design of a plan that would accommodate approximately 70,000 people by the year 2010. This would approximately double the existing holding capacity of between 34,000 and 36,000. There are five residential development projects currently under review by the City: an annexation and 249-lot single family subdivision on 73 acres on the north side of Table Mountain Boulevard; a specific plan that has been placed on hold by the developer; a 47-lot subdivision on 12 acres on 4th Street, north of Grand Avenue; a 49-lot subdivision on 10 acres on Feather Avenue at 20th Street; and a 136-lot subdivision on 30 acres on the south side of Feather Avenue between 18th and 20th Streets.



TOWN OF PARADISE GENERAL PLAN

VOLUME II DRAFT ENVIRONMENTAL IMPACT REPORT

SCH NO. 91043055



TOWN OF PARADISE GENERAL PLAN

VOLUME II DRAFT ENVIRONMENTAL IMPACT REPORT

SCH NO. 91043055

A. INITIAL STUDY AND NOTICE OF PREPARTION



NOTICE OF PREPARATION

TO: State Clearinghouse and All Responsible, Trustee and

Interested Agencies/Organizations

SUBJECT: Notice of Preparation of a Draft Environmental Impact

Report and Announcement of Environmental Issues Scoping

Session

LEAD AGENCY: Town of Paradise Planning Department

5555 Skyway, Paradise, CA 95969

CONTACT: Charley Stump, Senior Planner

The Town of Paradise will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the concerns and views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when reviewing and commenting on the revised Paradise General Plan document.

The project description, location and the potential environmental effects are contained in the attached materials. A copy of the initial study is attached and/or available for review at the Paradise Planning Department, RM 3, Town Hall - 555 Skyway, Paradise.

Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but not later than thirty (30) days after receipt of this notice.

There will be a formal environmental review scoping meeting for the proposed project on April 10, 1991 at 1:30 p.m. The meeting will be held in the Paradise Town Hall at 5555 Skyway, Paradise, CA. All agencies are strongly encouraged to attend.

Please send your response to Charley Stump, Senior Planner, at the address shown above. We will need the name of a contact person from your agency.

PROJECT TITLE: Town of Paradise General Plan Revision

PROJECT LOCATION: Town of Paradise, Butte County

PROJECT DESCRIPTION: Revision to all Elements of the Paradise

General Plan

DATE: MARCH 28, 1991

Charley Stump, Sentor Planner

Source: CA Admin. Code, Title 14, Secrions 15082(a), 15103, 15375

INITIAL STUDY

PROJECT DESCRIPTION

The proposed project is an update to the General Plan for the Town of Paradise, consisting of the Land Use, Circulation, Conservation, Open Space, Safety and Noise elements (adopted in 1982) and the Housing Element (adopted in 1985). The anticipated time frame for the document is 15 years, or through the year 2007 (with the exception of the Housing Element, which must be updated every five (5) years in accordance with the provisions of State law). The existing General Plan consists of Natural Resources, Natural Hazards, Life Enrichment, Environmental Quality, Housing, Community Development, and Regulatory Devices elements.

LOCATION/ENVIRONMENTAL SETTING

The Town of Paradise is located in eastern Butte County, in the western foothills of the Sierra Nevada Mountains. The location is shown on the vicinity map included with this Notice of Preparation and Initial Study. The boundaries of the Paradise Study Areas are indicated on the attached map. The Primary Study Area reflects the existing Town limits, and the Secondary Study Area reflects the existing Sphere of Influence. The Tertiary Study Area extends to the south and west to Highway 99 and Pentz Road. The Tertiary Study Area is an area of interest to the Town of Paradise, in terms of open space and development activity, and the General Plan will address this area at a very generalized level. This General Plan update may or may not plan for additional urban development, and it is not anticipated that all of these areas will be designated for urban growth and development in the Paradise General Plan. For purposes of this Initial Study, the term "Study Area" refers collectively to the Primary, Secondary and Tertiary Study Areas.

Located north of Paradise, within the Secondary Study Area, are the smaller unincorporated communities of Magalia and Paradise Pines. To the southeast is the City of Oroville (the County seat), and to the west is the City of Chico. The topography of Paradise is characterized by intervening ridges and valleys sloping to the southwest (elevation ranges from 1080 to 2320 feet), and the west branch of the Feather River and Little Butte Creek border the town on the east and west, respectively. The primary entrances to the community are State Highway 191 (Clark Road) and the Skyway.

COMPATIBILITY WITH EXISTING ZONING AND PLANS

The Secondary and Tertiary Planning Study Areas, which are outside the current Town limits, are planned for in the Butte County General Plan, as well as the Town's General Plan. The Town of Paradise is also included in the Butte County Association of Governments' Regional Transportation Plan and air quality planning is performed by the Butte County Air Pollution Control District. Any inconsistencies between the proposed Paradise General Plan and existing Town and County plans are proposed to be addressed through this General Plan update. Zoning ordinance amendments will be undertaken by the Town of Paradise as necessary following adoption of the Plan to conform to adopted land use designations and policy considerations.

TOWN OF PARADISE

ENVIRONMENTAL CHECKLIST FORM

Bac	KGTO	una .			
1.	Nd	me of Proponent Town of Paradise			
2.		dress and Phone Number of Proponent			
	5	555 Skyway, Paradise, CA 95969			
		916) 872-6284		·····	
3.	Da	te of Checklist Submitted			
4.	Zoi	ning and General Plan Designation Commi	unity W	Vide	
5.	Nai	me of Proposal, if applicable Paradise Genera	al Plan	n Revisi	on
Επνί	ronn	mental impacts			
(Exp	ianai	tions of all "yes" and "maybe" answers are requir	ed on a	ttached sh	eets.)
			Yes	Maybe	No
1.	Ear	th. Will the proposal result in:			
	a.	Unstable earth conditions or in changes in geologic substructures?		-	X
	b.	Disruptions, displacements, composition or overcovering of the soil?	X		
	c.	Change in topography or ground surface relief features?		X	
	d.	The destruction, covering or modification of any unique geologic or physical features?		X	
	e.	Any increase in wind or water erosion of soils, either on or off the site?		X	
	f.	Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?		Х	

11_

			Yes	Maybe	No
	g-	Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?		X	
2.	Air	. Will the proposal result in:			
	a.	Substantial air emissions or deterioration of ambient air quality?		X	
	ь.	The creation of objectionable odors?		X	
	c.	Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?		<u> </u>	
3.	Wa	ter. Will the proposal result in:			
	a.	Changes in currents, or the course of direction of water movements, in either marine or fresh waters?			X
	ь.	Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?		X	
	C.	Alterations to the course or flow of flood waters?		<u> </u>	
	d.	Change in the amount of surface water in any water body?		X	
	e.	Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?		x	
	f.	Alteration of the direction or rate of flow of ground waters?			X
	g.	Change in the quantity of ground waters, either through direct additions or with-drawals, or through interception of an equifer by cuts or excavations?		X	
	h.	Substantial reduction in the amount of water otherwise available for public water supplies?		X	
	i.	Exposure of people or property to water related hazards such as flooding or tidal waves?			<u>X</u>

		Yes	Maybe	No
4.	Plant Life. Will the proposal result in:			
	a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	ing	Х	
	b. Reduction of the numbers of any unique rare or endangered species of plants?	e, ——	X	
	c. Introduction of new species of plants in an area, or in a barrier to the normal replenishment of existing species?		X	
	d. Reduction in acreage of any agricultura crop?	···	X	
5.	Animal Life. Will the proposal result in:			
	a. Change in the diversity of species, or numbers of any species of animals (bird land animals including reptiles, fish and shellfish, benthic organisms or insects)?		<u> </u>	
	b. Reduction of the numbers of any unique rare or endangered species of animals?		X	
	c. Introduction of new species of animals an area, or result in a barrier to the migration or movement of animals?	into	X	
	d. Deterioration to existing fish or wildlife habitat?	e	X	
6.	Noise. Will the proposal result in:			
	a. Increases in existing noise levels?	***************************************	X	
	b. Exposure of people to severe noise leve	els?	. <u>x</u> .	
7.	Light and Glare. Will the proposal produce new light or glare?		X	
8.	Land Use. Will the proposal result in a substantial alteration of the present or planned land use of an area?		X	
9.	Natural Resources. Will the proposal result	in:		
	a. Increase in the rate of use of any nature resources?	ral	X	

			Yes	Maybe	No
	ъ.	Substantial depletion of any nonrenewable natural resource?			X
10.	Ris	sk of Upset. Will the proposal involve:			
	a.	A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an occident or upset conditions?			X
	b.	Possible interference with an emergency response plan or an emergency evacuation plan?		<u> </u>	
11.	dis:	oulation. Will the proposal alter the location, tribution, density, or growth rate of the nan population of an area?		X	
12.		using. Will the proposal affect existing hous- , or create a demand for additional housing?		<u> </u>	
13.		nsportation/Circulation. Will the proposal ult in:			
	a -	Generation of substantial additional vehicular movement?		X	
	ь.	Effects on existing parking facilities, or demand for new parking?		X	
	C.	Substantial impact upon existing transportation systems?		X	
	d.	Alterations to present patterns of circulation or movement of people and/or goods?		<u> </u>	
	e.	Alterations to waterborne, rail or air traffic?			X
	f.	Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?		X	
14.	effe	lic Services. Will the proposal have an ect upon, or result in a need for new or red governmental services in any of the owing areas:		* nemperature	
	a.	Fire protection?		X	
	ь.	Palice protection?		<u> </u>	
	C.	Schools?		X	

		Yes	Maybe	No
	d. Parks or other recreational facilities?			
	e. Maintenance of public facilities, including roads?			
	f. Other governmental services?		X	
15.	Energy. Will the proposal result in:			
	a. Use of substantial amounts of fuel or energy?		X	
	b. Substantial increase in demand upon exist- ing sources of energy, or require the development of new sources of energy?		_X	
16.	Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
	a. Power or natural gas?		X	
	b. Communications systems?		<u> </u>	
	c. Water?	-	X	
	d. Sewer or septic tanks?		X	
	e. Storm water drainage?		<u>X</u>	
	f. Solid waste and disposal?		_X	
17.	Human Health. Will the proposal result in:			
	a. Creation of any health hazard or potential health hazard (excluding mental health)?		X	
	b. Exposure of people to potential health hazards?		· <u>X</u> ·	
18.	Aesthetics. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?		X	
19.	Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?		X	
20.	Cultural Resources.			
	a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?		X	

			Yes	Maybe	No
	ь.	Will the proposal result in adverse physical or oesthetic effects to a prehistoric or historic building, structure, or object?		X_	
	C	Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?		X	
	ď	Will the proposal restrict existing religious or socred uses within the potential impoct area?		X	
21.	Mo	indatory Findings of Significance.			
	a. .	Daes the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X	
	b.	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-jetm impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)			X
	C.	Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)		X	
	d-	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X	

III. DISCUSSION OF ENVIRONMENTAL EVALUATION

Earth

1(b) Yes

Impacts. If new urban development, including residential development, occurs in previously undeveloped areas, changes in the condition of the soil, including leveling, compaction and overcovering of soil will result. Soils in Paradise are not generally considered highly permeable. Changes in the condition of the soil are an unavoidable adverse impact of the proposed General Plan update, if new areas are designated for urban development.

Mitigation Measures. The proposed General Plan will attempt to minimize adverse impacts on soils, through consideration of policies which ensure that soil resources are used in the most efficient manner possible, minimizing the cumulative impact on soils, and encouraging soil conservation outside the Plan boundaries. Policies promoting infill development and redevelopment of vacant or underutilized lands already within Town limits will be considered during Plan formulation. The General Plan will also incorporate a planning boundary or boundaries which will define the area within which growth and development may occur during the time frame of the Plan.

1(c,d,e) Maybe

Impacts. If additional development occurs in areas with sloping topography, grading and relatively permanent alteration to the natural topography of the area will be required. If grading or cut-and-fill is done improperly, or development is attempted on extremely steep slopes, it is possible that erosion, siltation and other adverse impacts, including subsidence, could occur. It is possible that destruction, covering or modification of unique geologic or physical features could occur, including impacts on former gold mining areas and natural drainage swales and basins. Mapping of Mineral Resources Zones by the California Division of Mines and Geology has not been completed in and around the Town of Paradise.

Mitigation Measures. The General Plan will consider policies which address restrictions on development on slopes greater than a certain degree, such as 30%, and consider the establishment of guidelines for development in areas formerly mined, development in areas with unique geologic or physical features, and for grading and cut-and-fill. Policies of this nature can be implemented through adoption and amendment of the local zoning and other ordinances.

1(f) Maybe

Impacts. If new areas are planned for urban development, changes in siltation, deposition or erosion which may modify the channel of local rivers or streams and drainage swales may result.

Mitigation Measures. It is anticipated that the General Plan will attempt to minimize adverse impacts on rivers, pockets of wetlands, and streams through consideration of policies which address grading and storm drainage and proximity of development to such features.

1(g) Maybe

Impacts. Previous studies suggest that seismic activity does not present a significant hazard in the Paradise Planning Study Area. However, some past seismic activity and the existence of known fault zones in proximity to Paradise suggest the potential for earthquake damage at some future point.

Mitigation Measures. The project includes an update of the Safety Element of the General Plan, which will include policies designed to minimize impacts of seismic hazards. Consultation with the State Division of Mines and Geology shall occur during the General Plan revision process. Continuing enforcement of the requirements of the Uniform Building Code in all new and remodeled structures will help to minimize potential damage resulting from seismic activity.

Air

2(a,b,c) Maybe

Impacts. If additional population concentrations and urban development are planned, more vehicle traffic, increased emissions, and contribution to the cumulative deterioration of ambient air quality will result. Intermittent impacts will also result from grading and construction during Plan buildout if new areas are planned for development, or for improvements to the existing road system. The mandate of the State Clean Air Act to reduce emissions countywide from 1987 levels suggests that any net increase in air pollutant emissions may have a significant effect on the environment. Butte County is designated a nonattainment County for ozone, and the Paradise area is designated as an attainment area for carbon monoxide and nitrogen dioxide (it is unclassified for all other categories). Butte County does not meet State and Federal standards for particulate matter smaller than 10 microns in diameter (PM₁₀). The Butte County Air Pollution Control District (BCAPCD) does not operate any monitoring stations in Paradise.

Factors in the Paradise area which may contribute to adverse air quality include burning of waste vegetation, use of wood stoves, automobile emissions, agricultural

burning on the Valley floor and pesticide and herbicide application, all of which contribute to hydrocarbon emissions. However, relative to other nonattainment areas of California, emissions inventories for Butte County show low to moderate emissions of total organic gases and nitrogen dioxide.

If new residential development is planned in proximity to certain types of commercial uses and industrial operations, residents may be exposed to unpleasant odors.

The burning of leaves and other waste vegetation, in substantial amounts, may have a localized effect on air movement, causing updrafts and directional changes which would not otherwise occur.

Mitigation Measures. Short-term impacts caused by construction-related dust attributable to General Plan buildout over time can be mitigated by proper dust suppression practices. While impacts caused by emissions from construction equipment are generally unmitigable, it is not anticipated that they would be significantly adverse.

The General Plan will attempt to separate and locate residential uses away from areas and facilities that may generate unpleasant odors.

The General Plan will be coordinated with the policies and regulations adopted by the BCAPCD, including indirect source rules and transportation control measures, to the extent that those are available within the time frame for General Plan adoption. Circulation system improvements which will be recommended in the General Plan will be intended to reduce traffic congestion and improve air quality in the region. The General Plan will also consider policies which encourage increased transit ridership and other forms of alternative transportation. Mandatory solid waste collection and disposal and/or alternative methods of disposal of waste vegetation would mitigate impacts resulting from burning of such vegetation. Please refer to item 16(f) for further discussion of potential mitigation measures.

Water

3(b) Maybe

Impacts, If new urban development is planned in previously undeveloped areas, changes in soil drainage patterns, absorption or percolation rates, and the rate and amount of surface runoif, due to grading and an increase in impermeable surfaces (paved streets, structures, parking areas, etc.), will result. Soils in the

Paradise area are not generally considered to be highly permeable. Improperly planned development and/or individuals alterations may adversely impact natural drainage swales and basins, creeks and streams.

Mitigation Measures. The impacts related to drainage and runoff may be mitigated through implementation of the recommendations of the Town's Master Storm Drainage Study and Facilities Plan (McCain Associates, 1980), policies and implementation standards included in the General Plan update, and the Town's existing subdivision and site plan review processes. The Plan should attempt to designate the future general locations for storm water retention basins, if these are determined to be necessary. The subdivision and site plan review processes assure that grading will result in proper drainage and that the appropriate storm drainage facilities are installed.

The Master Storm Drainage Study and Facilities Plan recommended that detention storage be considered for all new development and the location of detention reservoirs. It also recommended establishment of "special permit zones" where special clearance would be required prior to constructing improvements to make adequate provision for design flows. Further recommendations included establishment of storm drainage fees and assessment districts, a comprehensive grading ordinance, easement dedications, some piping of storm drains, improvements to open channels and some culvert replacement. Please refer to item 3(e) for further discussion of discharge requirements.

3(c) Maybe

Impacts. It is possible that if additional, improperlyplanned urban development occurs, alterations to the course or flow of floodwaters resulting in inundation of areas not previously subject to flooding could occur. Localized stream flooding may result from individual and project-related alterations to natural drainage courses.

Mitigation Measures. Impacts which are identified may be mitigated through policies and implementation standards included in the General Plan regarding hydrology, grading, drainage and development standards, and implementation of the Master Storm Drainage Study and Facilities Plan.

3(d,h) Maybe

Impacts. If additional urban development, including residential development, is planned, consumption of additional surface water from Magalia Reservoir and Paradise Reservoir, and possible development of other water sources, for domestic use may result; the quantity is unknown at this time.

Mitigation Measures. Impacts which are identified may be mitigated through policies included in the General Plan regarding growth management, coordination between water service capacity and new development, and water conservation measures. Also, improved coordination of planning and administration between the Town and local water purveyors may help to mitigate potential impacts.

3(e) Maybe

Impacts. If new urban development is planned in previously undeveloped areas, the amount of stormwater runoff discharge may increase, which may result in adverse impacts on surface water quality. Specific water quality information for surface waters is not available. The existing network of drainage basins and swales, which collects runoff and directs it to downslope stream courses, is inadequate during lengthy winter storm activity.

Mitigation Measures. The General Plan should review and discuss modifications to traditional methods of storm water discharge. Alternatives may include detention and/or retention basins and other, nontraditional solutions. National Pollutant Discharge Elimination System (NPDES) permitting requirements for non-point-source discharges into waterways, including stormwater discharge, have been delayed for cities of less than 100,000 population, but are expected to be required of cities the size of Paradise in 1992. These regulations may require pretreatment of discharged stormwaters.

3(g,h) Maybe

Impacts. If additional urban development is planned, increased demands upon groundwater supplies may result. Increased demand for domestic water supplies may contribute to groundwater overdraft, especially during drought years.

Mitigation Measures. The General Plan will address water quantity and quality and water system capacity needed to serve the proposed General Plan buildout. Policies regarding water conservation, drought-tolerant landscaping, and coordination of any planned growth with service capacity could reduce or delay the need for additional facilities. (Please refer to mitigation measures for item 3(d) above).

Plant Life

4(a,b,c) Maybe

Impacts, If additional urban development is planned, the replacement of some native vegetation with structures, roads and landscaping will occur. The California Natural Diversity Data Base (CNDDB)

indicates that special-status plants with reported occurrences in the Planning Study Area include the following: California Hibiscus (*Hibiscus californicus*, Federal-Candidate Category 2; State-None); and Butte County Checkerbloom (*Sidalcea robusta*, Federal-Candidate Category 2; State-None). No occurrences have been reported within the Primary or Secondary Study Areas.

Other special status plant species with potential to occur in the Study Area include Butte County fritillary (Fritillaria eastwoodiae), Red Bluff rush (Juncus leiospermus), Bidwell's knotweed (Polygonum bidwelliae), Butte morning glory (Calystegia atriplicifolius) and clustered lady slipper orchid (Cypripedium fasciculatum).

A field reconnaissance will be conducted during preparation of the Open Space and Conservation Elements which will provide more detailed information regarding existing conditions and impacts.

Mitigation Measures. The General Plan land use designations and policies should be designed to assure protection of, and mitigate impacts upon, special-status plant species and habitat. Measures may include conservation or open space easements, requirements for site-specific biotic surveys, enhancement of the riparian corridors along the Feather River and/or Little Butte Creek, habitat acquisition, and/or dedications of land. Additional mitigation measures may be identified during the environmental review process.

4(d) Maybe

Impacts. If land which is currently in agricultural production is designated for urban development in the General Plan, a reduction in acreage of agricultural crops may result.

Mitigation Measures. The potential loss of agricultural resources will be evaluated in the Environmental Impact Report to determine whether it meets accepted thresholds for significance. Policies can be included in the General Plan which prevent premature conversion of agricultural lands and which promote preservation of agricultural areas in the community.

Animal Life

5(a,b,c,d)Maybe

Impacts, The CNDDB indicates no reported occurrences of ET&C animal species within the Study Area. Information obtained from the DFG indicates that additional development may impact deer herd migration through the Study Area. A field reconnaissance will be conducted during preparation of

the Open Space and Conservation elements which will provide more detailed information regarding existing conditions and impacts.

Changes in land use and increased levels of human activity may restrict uninterrupted open space around or through the Planning Study Areas which may serve as foraging areas for certain species.

Mitigation Measures. The General Plan land use designations and policies should be designed to assure protection of, and mitigate impacts upon, special-status animal species and habitat. Measures may include conservation or open space easements, requirements for site-specific biotic surveys, restrictions on fence construction, enhancement of riparian corridors, habitat acquisition, and/or dedications of land. Additional mitigation measures may be identified during the environmental review process.

Noise

6(a,b) Maybe

Impacts. If additional urban development is planned, especially certain types of commercial and industrial development and new or expanded roadways, increased noise levels due to increased traffic and noise-generating land uses will result. If areas are designated for noise-sensitive land uses (e.g. residential, school, hospitals) adjacent to noise-generating land uses (Highway 191, Skyway, other major roadways, the airport), potentially severe noise impacts could occur.

Mitigation Measures. The General Plan update will include an updated Noise Element which will contain existing and projected noise exposure contours for major roads and other major noise generators. The updated Noise Element will provide policies and standards for any planned new development, and subsequent individual projects will be evaluated for consistency with the Noise Element. Land use patterns will be consistent with these policies as well. Individual projects will also be subject to the environmental review process.

Light and Glare

7 Maybe

Impacts. If additional urban development is planned, especially certain types of commercial and industrial development, new sources of light and glare in the surrounding area may result. Exact locations or intensities are unknown at this point, until specific development proposals are received.

Mitigation Measures. The General Plan will attempt to avoid these impacts when assigning land use designations by buffering or otherwise separating light-sensitive uses from sources of light and glare. As property is developed, Town development standards and conditions of approval will be applied to mitigate potential impacts of light and glare upon surrounding properties. Town standards do not normally require the installation of street lights, thus limiting the extent of adverse impacts. Individual discretionary projects will be subject to Town project review processes prior to approval.

Land Use

8 Maybe

Impacts. Adoption of the General Plan update may result in substantial changes from the present and/or planned land use in areas with existing development, and if areas which are not now developed or designated for urban development are so designated.

Mitigation Measures. The proposed project is a General Plan update, which involves changing present and/or planned land uses in many instances; including, but not limited to, potential open space designations. The impacts associated with proposed land use designations, and related mitigation measures, are addressed under the appropriate subject headings above and below.

Natural Resources

9(a) Maybe

Impacts. If additional urban development, including residential development, is planned, this development will consume natural resources both during construction and through continued maintenance of facilities and industrial production, if industries are involved.

Mitigation Measures. Because any new development in the Plan area will consist of new residential structures, businesses and industries, modern energy-conservation practices, design and materials will be incorporated which will minimize the use of natural resources to the extent possible.

Risk of Upset

10(b) Maybe

Impacts. If additional urban development is planned and/or densities are increased, evacuation made necessary by wildland fires or other emergencies may become more difficult.

Mitigation Measures. The General Plan includes an update of the Safety Element which will address

emergency evacuation plans. The Town is also in the process of preparing an Emergency Operations Plan, of which relevant portions will be incorporated in the Safety Element.

Population and Housing

11,12 Maybe

Impacts. Adoption and implementation of the General Plan may result in increased population densities in specified areas, and may result in the location of population clusters in currently undeveloped areas. Population projections will be included in the General Plan update. The Plan may result in creating new demand for Town services in areas which currently do not receive such services to full urban standards.

The General Plan may designate new areas for residential development, in proportion to areas designated for commercial and/or industrial development. If new commercial and industrial development are planned, that development and the Town's physical attributes may result in increased demand for housing in the community. Additional characteristics of the local housing market include the community's attractiveness as a retirement and second home community, which may generate additional housing demand.

Plan implementation may, over time, create a substantial additional supply of housing to the existing stock if new areas are planned for development. Installation of a sewer system may broaden housing opportunities in the Town by permitting construction of additional multifamily housing and the potential for higher residential densities.

The General Plan will include an update to the Housing Element, which will address housing needs and all housing-related issues required by law.

Mitigation Measures. It is anticipated that the policies and programs contained in the Land Use and Housing elements will mitigate adverse impacts on housing which may result from the Plan. The Town is also considering adoption of a Redevelopment Plan, which would provide a 20% set-aside of redevelopment funds to be used for housing-related purposes.

Transportation/Circulation

13(a,b,c,d,f)Maybe

Impacts. If new urban development of currently undeveloped areas is planned, construction of new or extended arterial, collector and local streets and increased traific volumes and attendant impacts, i.e.

congestion, increased vehicle emissions, increased noise levels, lack of parking, safety hazards and alteration of existing circulation patterns will result. New road construction and improvements to the existing road system would be required as development occurs. Specific issues which have been identified include anticipated transportation control measures and coordination of air quality planning; alternative transportation needs of senior citizens; need for additional cross streets connecting Skyway, Clark and Pentz Magalia roads; and need for additional travel lanes in major roadways.

Mitigation Measures. The General Plan, which will provide for comprehensive planning of any areas designated for urban development, will attempt to mitigate potential traffic problems through measures such as appropriate street system design, traffic controls, promotion of increased transit ridership, pedestrian and bicycle safety considerations, and plans for improvements to existing roadways. The Plan update includes an update of the Circulation Element. The existing transit system will need to serve an expanded area if annexation and new development occur. Increased transit use will help mitigate impacts associated with increased traffic.

Public Services

14(a,b) Maybe

Impacts. If additional urban development is planned, increased demand for, and possible dilution of, police and fire protection services will result as buildout occurs. The topography and vegetation of the Paradise region make areas of the community susceptible to wildland fire hazards and limit potential emergency evacuation routes.

Mitigation Measures. It is anticipated that the implementation portion of the General Plan update will address means of providing police and fire service. The General Plan should also establish a reasonable geographic area for provision of urban services. A Capital Improvement Study currently in preparation for the Town will identify needed facilities and services, maintenance of public facilities, and potential financing methods, such as assessment districts, community facilities districts, developer/subdivision fees, and other user fees. The project includes an update of the Safety Element of the General Plan, which will include, but not be limited to, policies designed to minimize wildland fire hazards and designate emergency evacuation routes.

14(c) Maybe

Impacts. If new urban development is planned, adoption of the General Plan will eventually result in increased enrollment in the local school district, which will contribute to overcrowding of existing facilities, need for additional sites and facilities, and/or need for additional student transportation. Anticipated State budget cuts may exacerbate this situation.

Mitigation Measures. Future school location planning in coordination with Town Planning staff and the General Plan, coordination regarding future development proposals, and identification of future school sites, will help mitigate impacts on schools. Other mitigation measures include continued implementation of developer impact fees and year-round school, which has already been implemented at one of the two elementary schools in the Town and is planned for the other school in 1992.

14(d) Maybe

Impacts. If additional urban development is planned, new demand for park and recreational facilities will be created in the Town, and increased use of regional park facilities and public trails, and impacts on the Paradise Recreation and Parks District may also result.

Mitigation Measures. It is anticipated that the implementation portion of the General Plan will address future park sites and means of providing and paying for parks and recreational services. The Town already administers a "Quimby" provision within the Town Subdivision Ordinance which provides for the collection of fees and/or dedication of land prior to the filing of all parcel and subdivision maps.

14(e,f) Maybe

Impacts. If additional urban development is planned, increased demand for community facilities and services will result, including construction and maintenance of roads.

Mitigation Measures. The General Plan, as well as a Capital Improvement Study currently in preparation for the Town, will identify needed community facilities and services, maintenance of public facilities, including roads, and potential methods of financing such facilities and services.

Energy

15(a,b) Maybe

Impacts. If additional urban development is planned, increased demand for, and consumption of, natural gas, electricity and other power sources will occur. However, it is likely or possible that an equivalent level of development, and corresponding consumption of

resources, would occur elsewhere in the region if the development does not occur in Paradise.

Mitigation Measures. Utility companies will be consulted during formulation of the General Plan/EIR to determine impacts upon their service capabilities. Because any new development in the Plan area will consist of new residential structures, businesses and industries, modern energy-conservation practices, design and materials will be incorporated which will minimize the use of energy resources to the extent possible.

Utilities

16(a) Maybe

Impacts. Please refer to item 15(a) above.

Mitigation Measures. Please refer to item 15(a) above.

16(b) Maybe

Impacts. If additional urban development is planned, increased demand for telephone, cable television, and other communications systems will occur.

Mitigation Measures. Communications system providers will be consulted during formulation of the General Plan/EIR to determine impacts upon their service capabilities. Proposed development projects will be reviewed to assure that such services can be provided.

16(c) Maybe

Impacts. If additional urban development is planned, additional domestic water service and supply facilities will be needed as buildout occurs. Water service is currently provided in the Town and surrounding areas by three special districts: Paradise Irrigation District, Magalia County Water District and Lime Saddle Community Services District, from a combination of surface and groundwater sources, including Magalia and Paradise Reservoirs on Little Butte Creek. Extension of one or more of the systems would be required. The service capacity of one or more of the districts may not be adequate to serve future urban development if such development is planned. Water system improvements under consideration include new wells, acquiring water rights from PG&E, raising Magalia Dam and a proposed filtration plant to improve water quality.

Mitigation Measures, It is anticipated that the General Plan will consider policies which address alternative methods of providing domestic water service and policies coordinating new development with the availability of water service capacity. The General Plan/EIR will address water service capacity, the districts' ability to provide additional water service and

fire flow and potential facilities and methods for provision of domestic water service and fire flow. Proposed subdivisions and other new development will be required to meet standard Town conditions for the provision of both domestic and fire protection water service.

16(d) Maybe

Impacts. If additional urban development is planned, increased demand for wastewater disposal will result. The Town does not currently have a wastewater collection, treatment and disposal system; all development relies on individual septic systems. Buildout of any new areas selected for growth and development without installation of a sewer system may result in significant impacts with regard to health hazards and water quality, and is probably not possible. The Regional Water Quality Control Board has advised the Town to correct the problem of potential groundwater contamination from septic systems.

Mitigation Measures. The Town has adopted an on-site systems ordinance restricting the density of development within town limits to a level commensurate with the estimated assimilative capacity of area soils. The Town has formed a Wastewater Design Assessment District and is in the process of forming a Sewer Assessment District and issuing bonds to fund construction of a sewer system in a portion of the Town. Litigation is currently in progress by some local property owners to prevent implementation of the "Design District".

According to the "Sewer Project Feasibility Study" prepared by Kennedy/Jenks/Chilton, the State can impose a sewer system on the Town. Significant improvements in groundwater quality can be expected upon construction and operation of a central wastewater facility. Assumptions regarding wastewater collection, treatment and disposal will be a basic factor in the formulation of the General Plan, since it affects and limits population growth, densities and the types of development which can be permitted. Regular septic tank inspections can help mitigate impacts caused by individual systems.

16(e) Maybe

Impacts. Please refer to item 3(b).

Mitigation Measures, Please refer to item 3(b).

16(f) Maybe

Impacts, If additional urban development is planned, the need for solid waste disposal and potential demand for solid waste collection service will increase. The General Plan/EIR will discuss the capacity of the Neal

Road landfill facility and future plans for solid waste disposal and recycling.

Mitigation Measures. It is anticipated that the General Plan will consider policies regarding mandatory solid waste collection and disposal and recycling. A recycling study is currently being prepared for the Town, and the Town, in cooperation with a private company, has already initiated a pilot curbside recycling program. Other potential programs include educational programs, additional recycling centers, and possible wood waste recycling and composting programs.

Human Health

17(a,b) Maybe

Impacts. Urban development on septic systems without regard to impacts on water quality and proper operation of septic systems could create health hazards and expose people to potential health hazards.

Mitigation Measures. Please refer to item 16(d) above.

Aesthetics

18 Maybe

Impacts. If additional urban development is planned, the types of vistas which now characterize the area, which are rustic, hilly and lush with trees, as well as valley panoramas, may be altered.

Mitigation Measures. It is anticipated that the General Plan will consider policies which address maintenance and enhancement of the community's aesthetic character through measures such as tree planting, management and preservation (implementation of the current tree ordinance); proper site planning and design review; maintenance of a relatively low density of development; and restrictions on development on ridgelines and on slopes of greater than 30 percent. The Conservation and Open Space elements will take into consideration preservation of areas of scenic beauty, maintenance of appropriate open space, park development and landscaping standards.

Recreation

19 Maybe

Impacts, Please refer to item 14(d).

Mitigation Measures. Please refer to item 14(d).

Cultural Resources

20(a,b,c,d)Maybe

Impacts. The Northeast Information Center at California State University, Chico has identified areas in the community with a possible high sensitivity for

archaeological or historical resources. Two structures in the community have been surveyed which may be significant historical resources, and several historical landmarks are located in the area. Numerous identified and recorded archaeological sites exist within the Paradise Town limits.

Mitigation Measures. It is anticipated that the General Plan will include policies to address preservation of cultural resources. In areas of high sensitivity, it is anticipated that these policies will provide for compliance with Appendix K of the CEQA Guidelines, including provisions that a qualified professional archaeologist be contracted to conduct a field survey as part of the environmental review process for development permits.

V. REFERENCES

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SUGGESTED DISTRIBUTION LIST PARADISE INITIAL STUDY

Butte Community College District

Butte County:

Airport Land Use Commission Air Pollution Control District Agricultural Commissioner

Board of Supervisors

Environmental Health Dept.

LAFCO

Planning Dept.
Public Works Dept.
Sheriff's Dept.

Butte County Library (Paradise Branch)
Butte County Association of Governments

Butte County Mosquito Abatement District

Butte County Housing Authority

Butte County Farm Bureau

California Division of Forestry

California Highway Patrol (Long Range Planning Division)

California State University, Chico Archaeological Inventory Northeastern Information
Center

Caltrans (District -)

Chico Unified School District

City of Gridley

City of Oroville

City of Chico

City of Biggs

Dept. of Parks and Recreation

Dept. of Fish and Game

Dept. of Housing and Community Development

Dept. of Conservation

Division of Mines and Geology Durham Unified School District

Feather River Hospital

Kimshew Cemetery District

Lime Saddle Community Services District

Magalia County Water District

Native American Heritage Commission

Office of Noise Control

Pacific Bell Telephone Company Pacific Gas and Electric Company Paradise Chamber of Commerce Paradise Senior Citizens Center

Paradise Pines Property Owners Assn.

Paradise Irrigation District

Paradise Recreation and Park District

Paradise Board of Realtors

Paradise Cemetery District

Paradise Sky Park (owners)

Paradise Unified School District

Public Utilities Commission

Regional Water Quality Control Board

Resources Agency

Sierra Club, Paradise Ridge Chapter

State Clearinghouse

State Office of Historic Preservation

State Lands Commission

Town of Paradise Departments

TOWN OF PARADISE GENERAL PLAN

VOLUME II DRAFT ENVIRONMENTAL IMPACT REPORT

SCH NO. 91043055

B. RESPONSES TO NOP



DEPARTMENT OF CONSERVATION

DIVISION OF MINES AND GEOLOGY

SACRAMENTO DISTRICT OFFICE

630 BERCUT DRIVE

SACRAMENTO, CA 95814-0189

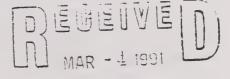
Phone (916) 324-7299



February 26, 1991

Mr. Charley Stump Senior Planner Town of Paradise 5555 Skyway Paradise, CA 95969





TOWN OF PARADISE PLANNING

SUBJECT: Revisions of Town of Paradise General Plan

Thank you for your letter requesting geologic and seismic information for the revisions to the General Plan of the Town of Paradise. The Department of Conservation's Division of Mines and Geology (DMG) has special expertise in evaluating geologic and seismic hazards, as well as mineral resource issues.

- 1. Our review of the Safety Element of your existing General Plan finds it reasonably complete. However, we would recommend that the map identifying active and potentially active faults should be updated. In particular, the Magalia and Paradise faults should be identified on the fault map (see Harwood and Helley, 1982). While there is no current evidence for recent (Holocene) surface displacement on these faults, some evidence suggests geologically recent displacement (Dudley, 1988). Additional data on the faults in the area of the Town of Paradise are discussed by the California Department of Water Resources (1979), Woodward-Clyde Consultants (1978), Hart and others (1984). General geologic data of the area of the Town of Paradise are presented in Burnett (1961), Division of Mines and Geology (1965), and Jennings (1975). A copy of a geologic map index for the area of Paradise is enclosed. These publications are available for purchase and/or review at DMG's Publications Office and Library, located at 660 Bercut Drive, Sacramento, California, 95814.
- 2. Ideally, the General Plan should contain, among other things, geologic hazards maps showing the general location of a number of hazards, including zones of slope instability, seismic ground shaking, potential liquefaction, and areas subject to flooding from storm waters and dam inundation. These maps should be of sufficient scale and detail to easily locate specific lots or sites relative to areas of known geologic hazards. We suggest that existing

Mr. Charley Stump February 26, 1991 Page Two

data from the records of your building and planning department and any data that exists on geologic hazards, such as areas of liquefaction or expansive soils, be compiled onto these hazard maps. In addition, we have enclosed copies of DMG Note 46, "Guidelines for Geologic/Seismic Considerations in Environmental Impact Reports", and DMG Note 43, "Recommended Guidelines for Determining the Maximum Credible and the Maximum Probable Earthquakes". These documents may aid in the determination of potential impacts from earthquakes on nearby active faults, and other geologic hazards in the General Plan area.

I hope this brief information will be of value to you. If you have further questions, please contact me at (916) 322-2562. We look forward to reviewing a draft of your revised Safety Element.

Sincerely,

Roger C. Martin
Project Manager

Environmental Review Project

RCM: KC: skk

Enclosures

cc: Dennis O'Bryant, Department of Conservation Kit Custis, Division of Mines and Geology

References:

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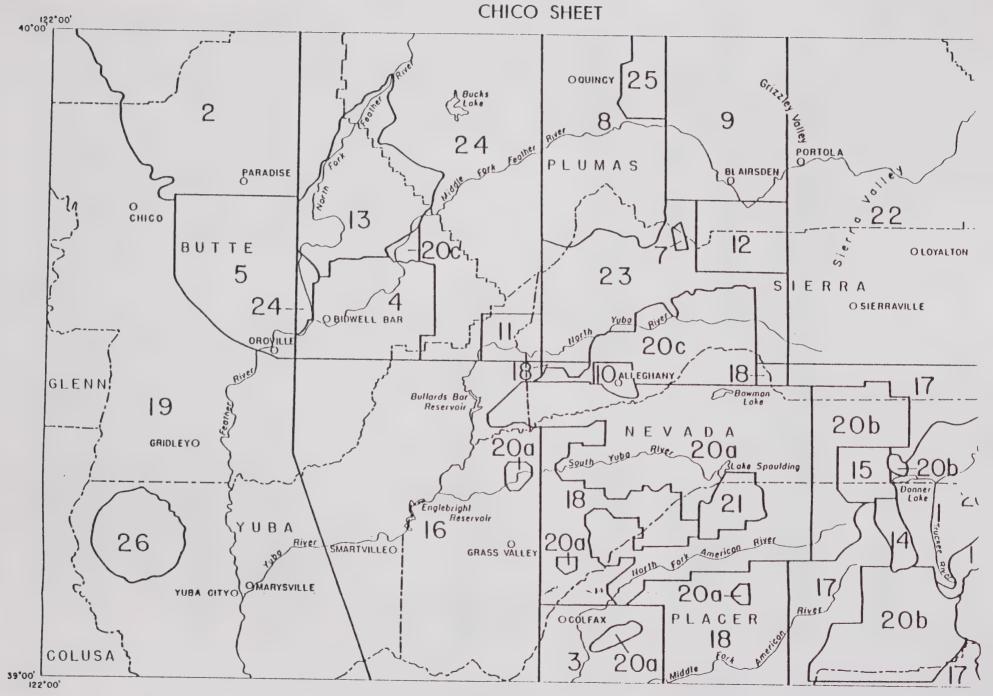
Reviewed by:

Trinda L. Bedrossian
Supervising Geologist

RG 3363, CEG 1064

INDEX TO GEOLOGIC MAPPING

USED IN THE COMPILATION OF THE CHICO SHEET



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Se trough luisage smith to noisivid sas para sint For a complete list of published geologic maps a

II. CHECKLIST OF GEOLOGIC REPORT ELEMENTS

RE	PORT ELEMENTS	YES	NO
A	General Elements Present Description and map of project. Description and map of sits. Decription and map of pertinent off-site areas.		
В.	Geologic Element (refer to checktist) Are all the geologic problems mentioned? Are all the geologic problems adequately described?		
C.	Mitigating Measures Area mitigating measures necessary? Is sufficient geologic information provided for the proper design of mitigating measures? Will the failure of mitigating measures cause an irreversible environmental impact?		
D.	Alternatives Area alternatives necessary to reduce or prevent the irreversible environmental impact mentioned? Is sufficient geologic information provided for the proper consideration of alternatives? Are all the possible alternatives adequately described?		
E	Implementation of the Project is the geologic report signed by a registered geologist?" Does the report provide the necessary regulations and performance criteria to implement the project?		

^{*}Required for interpretive geologic information.

III. PUBLISHED REFERENCES (selected)

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 - Greenstelder, R.W., 1974, Maximum credible rock acceleration from earthquakes in California; Map Sheet 23.
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 9. Parke, D.L., Reel, C.R., Toppozada, T.R., 1978, Earthquake Epicenter Map of California, show-
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 1900-December 31, 1974 (microfiche).
- B. Other Publications
 - Allen, C.R., et al., 1965, Relationship between seismicity and geologic structure in the southern California region: Bulletin of the Seismological Society of America, v. 55, no. 4.
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IV. PUBLIC AGENCIES WITH GEOLOGIC DATA

	Data Available					
Source	Setsmicity	Geology	Ground Water	Soils		
Libraries and Geology and Engineering Departments of California Universities	X	×	X	X		
California institute of Technology	X					
California Division of Mines and Geology (Secramento, San Francisco, Los Angeles, CA)	Х	×				
California Department of Water Resources (Sacramento, CA)		×		X		
California Department of Transportation (District Offices)				Х		
County Soil & Water Conservation Districts				×		
County Engineer and Departments of Building and Safety	X	X		Х		
County Highway Department				х		
County Flood Control Dustrict				X		
U.S. Geological Survey (Menio Part, CA)		X				
U.S. Corps of Engineers (District Engineer)		X				
U.S. Bureau of Reciamation (Regional Offices)		X				
U.S. Soil Conservation Service and Forest Service				×		

GUIDELINES FOR GEOLOGIC/SEISMIC CONSIDERATIONS IN ENVIRONMENTAL IMPACT REPORTS

The following guidelines were prepared by the Division of Mines and Geology with the cooperation of the State Water Resources Control Board to assist those who prepare and review environmental impact reports.

These guidelines will expedite the environmental review process by identifying the potential geologic problems and by providing a recognition of data needed for design analysis and mitigating measures. All statements should be documented by reference to material (including specific page and chart numbers) available to the public. Other statements should be considered as opinions and so stated.

1. CHECKLIST OF GEOLOGIC PROBLEMS FOR ENVIRONMENTAL IMPACT REPORTS

GEOLOGIC PROBLEMS				project or geologic event ronmental problems?	docume	Is this conclusion documented in strached recorts?	
PROBLEM	ACTIVITY CAUSING PROBLEM	NO	YES	ENVIRONMENTAL PROBLEMS	NO	YES	
	Faurt Movement						
	Liqueraction						
	Landstides						
	Differential Compaction/ Seismic Settlement						
EARTHQUAKE	Ground Rupture						
DAMAGE	Ground Shaking						
	Tsunemi						
	Seiches						
	Flooding Due to Failure of Dams and Levees						
	Loss of Access						
LOSS OF MINERAL RESOURCES	Deposits Covered by Changed Land-Use Conditions						
	Zoning Restrictions						
WASTE DISPOSAL	Change in Groundweter Level						
PROBLEMS	Disposel of Excavated Material						
	Percolation of Waste Material						
	Landswees and Mudtlows						
SLOPE AND/OR FOUNDATION	Unstable Cut and Fill Slopes						
INSTABILITY	Collegeiole and Expensive Soil						
	Tranch-Wall Stability						
	Erosion of Graded Areas			~			
EROSION. SEDIMENTATION.	Alteration of Runoff						
FLOODING	Unprotected Drainage Ways						
	Increased Impervious Surfaces						
LAND SUBSIDENCE	Extraction of Groundwater, Gas, Oil, Geothermal Energy						
	Hydrocomosction, Peet Oxidation						
VOLCANIC HAZARDS	Lave Flow						
	Asth Feti						

(over)

RECOMMENDED GUIDELINES FOR DETERMINING THE MAXIMUM CREDIBLE AND THE MAXIMUM PROBABLE EARTHQUAKES

The following guidelines were suggested by the Geotechnical Subcommittee of the State Building Safety Board on 3 February 1975 to assist those involved in the preparation of geologic/seismic reports as required by regulations of the California Administrative Code, Title 17. Chapter 8. Safety of Construction of Hospitals. CDMG is currently using these guidelines when reviewing geologic/seismic reports.

Maximum credible earthquake

The maximum credible earthquake is the maximum earthquake that appears capable of occurring under the presently known tectonic framework. It is a rational and believable event that is in accord with all known geologic and seismologic facts. In determining the maximum credible earthquake, little regard is given to its probability of occurrence, except that its likelihood of occurring is great enough to be of concern. It is conceivable that the maximum credible earthquake might be approached more frequently in one geologic environment than in another.

The following should be considered when deriving the maximum credible earthquake:

- (a) The seismic history of the vicinity and the geologic
- (b) the length of the significant fault or faults which can affect the site within a radius of 100 kilometers; (See CDMG Preliminary Report 13);

- (c) the type(s) of faults involved:
- (d) the tectonic and/or structural history;
- (e) the tectonic and/or structural pattern or regional setting (geologic framework);
- (f) the time factor shall not be a parameter.

Maximum probable earthquake (functional-basis earthquake)

The maximum probable earthquake is the maximum earthquake that is likely to occur during a 100-year interval. It is to be regarded as a probable occurrence, not as an assured event that will occur at a specific time.

The following should be considered when deriving the "functional-basis earthquake":

- (a) The regional seismicity, considering the known past seismic activity;
- (b) the fault or faults within a 100 kilometer radius that may be active within the next 100 years;
- (c) the types of faults considered:
- (d) the seismic recurrence factor for the area and faults (when known) within the 100 kilometer radius:
- (e) the mathematic probability or statistical analysis of seismic activity associated with the faults within the 100 kilometer radius (the recurrence information should be plotted graphically);
- (f) the postulated magnitude shall not be lower than the maximum that has occurred within historic time.

PYA. JES. RWS 2/75



Butte County

AND OF NATURAL WEALTH AND BEAUTY

PLANNING DEPARTMENT
7 COUNTY CENTER DRIVE - OROVILLE, CALIFORNIA 95965-3397
TELEPHONE: (916) 538-7601

April 2, 1991

Town of Paradise, Planning Department 5555 Skyway Paradise, California 95969 Att: Charley Stump/Senior Planner

RE: Response to Notice of Preparation of a Draft EIR for Paradise General Plan Update.

Dear Mr. Stump:

Thank you for the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the Town of Paradise General Plan Update. The Butte County Planning Department has the following comments and concerns in addressing the impact areas identified by the initial study:

- 1. Soils and development suitability
 - * A soil survey might be considered to guide site selection for residential, industrial, and commercial development that involves surface and subsurface structures.
 - * EIR should determine texture and composition of soils and identify bearing capacity, internal drainage, erosion potential, and slope stability.

2. Hydrology

- * EIR should provide analytical forecasts of the changes of overland flow and stream discharge expected from the proposed development and evaluate the performance of the entire watershed that is subject to any development.
- * EIR should estimate the concentration time by making separate estimates for:
 - (1) the time overland flow; and

- (2) the time of channel flow and then summing the two.
- * Utilize the ten year and hundred year storms of sixty minutes duration for storm water computations.
- * EIR should develop performance goals for the watershed on the Town of Paradise which reflect local values, policies pertaining to development intensity, storm water retention, wetlands, open space and the like.
- * EIR should develop performance standards and controls or the specific levels of performance that must be met if goals are to be achieved.
- * EIR should recommend performance controls to enforce the standards and goals. Controls may be specific ordinance or site plan review criteria within General Plan.
- * EIR should map precisely areas prone to flooding, taking into account development and runoff factors.
- * EIR should map the drainage network and supply the following data: number of streams, bifurcation ratio, drainage basin order, drainage area, and drainage density.
- * EIR should estimate nutrient loading of any impacted water body by identifying the various land uses proposed by the General Plan and major cover types in each land use category, noting the relationship to the drainage system and water features, what kinds of pollutant each land use category is apt to contribute (both nutrients and other types), and the locations of critical entry points.

3. Vegetation and Wildlife

- * EIR should document the distribution and makeup of the vegetative cover utilizing a scheme which outlines:
 - (1) vegetative structure,
 - (2) dominant plant types,

(3) plant size and density,

(4) site and habitat or associated use, and

(5) special plant species

Vegetative scheme should grant an understanding of both the biological phenomenon as well as the physical component of landscape having height, volume, texture, color, and functional ties with soil, water, air and land use.

* EIR should determine use of properties within study area by deer herds and identify the consequences of development as it relates to the deer herds.

4. Land Use

- * EIR should conduct a careful evaluation of demographic and economic trends to predict the nature and future character of the Town of Paradise.
- * EIR should inventory cultural resources available to the Town of Paradise and how the General Plan will impact future opportunities for the Town to expand these opportunities.
- * EIR should develop projections of needs for land use and probable phasing of development and analyze how it might impact other environmental goals.
- * EIR should identify scenic areas within the study area which may be disturbed or adversely effected by urban developments.
- * EIR should evaluate the relationship between the County's General Plan, the newly required Congestion Management Plan, and the Towns General Plan.

5. Recreation

* EIR should describe and inventory the current recreational resources of the study area by classifying resources and opportunities,

inventorying existing land, facilities, and programs.

- * EIR should evaluate the cost of providing recreational resources and programs for the build out population of the Town of Paradise.
- * EIR should analyze the demand/supply relationship and describe the deficiencies created by the allowed development under the new general plan.

6. Traffic and Circulation

- * EIR should evaluate the land use scenarios with transportation infrastructure and improvement program to ensure balance and desired level of service will be maintained.
- * EIR should review land use proposal to ensure compliance with the required Congestion Management Plan.
- * EIR should discuss future volume to capacity ratios and what it means in terms of level of service.
- * EIR should discuss traffic safety problems which will be associated with the projected traffic generated by the new General Plan.
- * EIR should discuss short and long range transportation improvement alternatives and the benefits of each alternative in meeting the projected traffic demands.
- * EIR should make recommendations for possible financial strategies to implement the transportation improvement plans and the pros and cons of each financial strategy.

8. Socio/Economic

* EIR should evaluate and analyze the housing needs by considering the following items:

(1) The market area - the within which dwelling units compete with one another; will General Plan and development policies exert pressure for housing

development in the Upper Ridge?

- (2) Demand employment, incomes, population, total households, family and household size.
- (3) Supply Housing inventory, residential construction activity.
- * EIR should analyze the fiscal impacts of the General Plan and estimate all costs and revenues associated with future development.
- * EIR should estimate the income potential for the Town of Paradise from all revenue sources for each year in the life of the plan.
- * EIR should evaluate the level of service to be provided for all governmental services.

If you have any questions concerning the above comments, please advise.

Sincerely,

B.A. Kircher Director of Planning

Brent L. Moore Associate Planner

BAK: BLM: tma

BUTTE COUNTY MOSQUITO ABATEMENT DISTRICT

DISTRICT OFFICE AT
N.E.CORNER OF OROVILLE AIRPORT
ON LARKIN ROAD
PHONE (916) 533-6038
342-7350

5117 LARKIN ROAD OROVILLE, CALIFORNIA 95965 WILLIAM E. HAZELTINE, P. MANAGER - ENVIRONMENTA

April 10, 1991

Charley Stump, Senior Planner Paradise Planning Department 555 Skyway Paradise, CA 95969



TOWN OF PARADISE

RE:Draft EIR for the Paradise General Plan Revision

Dear Charley:

As mentioned at your scoping meeting today we have reviewed your initial study for this project and have three concerns that we would like addressed in your draft EIR. They are as follows:

- 1. Under the general description of "water" there is a proposal to use "storm water retention basins". Storm water retention basins are known to breed mosquitoes if they are not properly maintained, and therefore we request that the condition for use of such basins be that they are properly designed and maintained so they do not breed mosquitoes.
- 2. We are concerned that the proposed sewer system may produce mosquitoes (see attached letter) and request that there be some written assurance or mitigation that the proposed sewer system will be managed so it will not create a mosquito breeding problem. Such assurance should address the design of the system and contingency control plans to prevent the creation of a public nuisance.
- 3. We commend you on including a Human Health element, and we request that a section be added on mosquitoes and mosquito borne disease. This should include information on the species that are important vectors of diseases such as Malaria, Encephalitis and Canine Heartworm disease, which may be found in Paradise.

We also request that a section under the Health element include information on Lyme Disease and the local tick vector of this disease.

We are willing to consult with you on the design of the storm water retention basins and the sewer system so that the likelihood of mosquito problems is reduced. We will also try to provide any information you need on mosquitoes or ticks and the diseases associated with them.

Sincerely,

James A. Camy

Assistant Manager

JAC:dm Attachment

JTTE COUNTY MOSQUITO ABATEMENT DISTRICT

DISTRICT OFFICE AT
CORNER OF OROVILLE AIRPORT
ON LARKIN ROAD
PHONE (916) 533-6036
342-7380

5117 LARKIN ROAD OROVILLE, CALIFORNIA 95965

WILLIAM E. HAZELTINE, PH.D. MANAGER - ENVIRONMENTALIST

July 27, 1990

Planning Department Town of Paradise 5555 Skyway Paradise, Ca 95969

RE: Proposed Use of Wastewater for Wetlands

Dear Planners:

I have read the Paradise Post article of 7/24/90 regarding the possible use of treated sewer effluent as a water source for a created wetland. Reference was made to the created marshes in Arcata.

You should be aware of the serious risk of mosquito production in ponds of this sort. Experts who have looked at the Arcata ponds found consistently high numbers of Culex tarsalis mosquito larvae. These may not be a problem in Arcata, because of the cooler temperatures, but in Butte County, such a mosquito breeding source would be an extreme liability for the owner/operator of such a facility.

If you are seriously considering such a facility, we urge you to understand the operational costs which would include the extensive use of pesticides. <u>Culex tarsalis</u> mosquitoes are a major vector species for encephalitis. Costs for abatement of mosquitoes in this source would be the responsibility of the facility operator.

If you plan to pursue this type of sewage treatment facility, we would be happy to review the risks and costs for you, in order to be sure your decision is based on a complete evaluation of the risks involved.

Sincerely,

William E. Hazeltine, Ph.D., R.P.E.

Manager - Environmentalist

WEH/km

cc: Dr. Chester Ward, Butte Co. Health Dept. Tom Kurtz, Paradise Post



Butte County AIR POLLUTION CONTROL DISTRICT

9287 MIDWAY, SUITE 1A DURHAM, CALIFORNIA 95938 (916) 891-2882

April 10, 1991

Charley Stump, Senior Planner Town of Paradise Planning Department 5555 Skyway Paradise, CA 95969

Subject: Draft EIR for Paradise General Plan

Mr. Stump,

Thank you for forwarding to us the Notice of Preparation for the Paradise General Plan revision. The Butte County Air Pollution Control District (APCD) has reviewed the information and we have concerns with how your department is dealing with the "build out" of the Paradise area and the air quality concerns. You have not adequately addressed the concerns from our point of view, consequently we have the following comments.

While the environmental checklist only has a small portion for the air quality concerns, checking the "maybe" column for each question does not alleviate the problems that are going to be created by the "build out". In the impacts/mitigation section, you blend all three of the questions into one.

The "build out" will lead to an increased population, consequently increased vehicle traffic and increased emissions that will lead to a degradation of the air quality in the Paradise area and in Butte County. Paradise is a part of Butte County and is therefore included in the non-attainment status designated by the State of California Air Resources Board. As is stated in this draft plan, the non-attainment designation is for ozone, carbon monoxide, and particulate matter. As you mentioned, the APCD does not operate any monitoring stations in the Paradise area. If there is going to be revision to the general plan that will lead to increased growth, than the APCD is going to require that the City of Paradise install and maintain an air monitoring station. The aforementioned pollutants are what are to be monitored.

Charley Stump Draft Plan Comments Page 2

Any residential development should address congestion management planning and traffic control measures before the building is allowed to commence. This will help mitigate the impacts of the development and offer alternate transportation measures to the population.

In addition, the burning of leaves and other waste vegetation in <u>any</u> quantity will have more of an effect on the air quality of the area, especially in residential areas, than it will on air movement. The APCD requests that the Town of Paradise follow the example set by the City of Chico and ban <u>all</u> waste, vegetation and leaf burning.

The APCD appreciates the opportunity to comment on the proposed revision to the General Plan of the Town of Paradise. If you have any comments or questions in this matter, please feel free to call me at 891-2882.

Singerely,

Gina Facca

Air Pollution Control Officer

GF:gf

DEPARTMENT OF FISH AND GAME

REGION 2 1701 NIMBUS ROAD, SUITE A RANCHO CORDOVA, CALIFORNIA 95670

(916) 355-7020



April 11, 1991

Mr. Charley Stump Town of Paradise Planning Department 5555 Skyway Paradise, CA 95969

Dear Mr. Stump:

The Department of Fish and Game (DFG) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Town of Paradise General Plan Revision. Seven elements of the General Plan will be updated: Land Use, Circulation, Conservation, Open Space, Safety, Noise, and Housing. In addition to the present town limits Primary Study Area, the Draft EIR will address a Secondary Study area reflecting the Town's Sphere of Influence and a Tertiary Study Area reflecting a general interest of the Town of Paradise (Town).

Significant adverse impacts on habitat and wildlife will occur because of the increased Town size implied by the NOP. The DFG recommends that the Draft EIR address these concerns:

- 1. Storm drainage and sewage impacts on water quality, including those areas outside of and downstream of affected water sheds. Specific mitigation measures should provide that water treatment facilities have the ability to remove soluble, suspended, and surface floating pollutants in addition to sediments.
- Sedimentation impacts caused by construction activities. Specific mitigation measures in the form of grading ordinances, slope constraints, revegetation, etc., should be provided.
- 3. Increased water supply impacts (including downstream of the watershed) caused by pumping, diversions, dams, etc. These impacts will affect springs in addition to lakes and streams. Aquatic and wetland habitat impacts should be fully discussed, with special emphasis to the effects on fisheries.
- 4. Potential impacts on all sensitive plant species given Federal, State, or California Native Plant Society listings. There may be more than 20 species occurring within the study areas. Specific

- mitigation measures such as setbacks, open space designations, etc. Should be provided.
- 5. Riparian and wetland (including vernal pools) impacts beyond those mentioned in concern #3, including all streams, lakes, and wetlands.
 - Specific mitigation measures such as setbacks, open space designations and drainage restrictions should be provided.
- 6. Impacts on deer winter range. The DFG recommends that the mitigation measures and actions proposed to the Butte County Board of Supervisors for land use encroachment impacts on deer winter range be adopted by the Town.
- 7. Impacts on the endangered bald eagle. Eagles winter around streams and reservoirs within the study area. It is probable that eastern portions of the study areas fall within the foraging territory of a nearby eagle breeding territory.
- 8. Impacts on wildlife species of special concern. More than 20 such species of amphibians, reptiles, birds, and mammals may occur in the study areas.
- 9. Impacts on all habitats and species, in addition to those specially emphasized above.

Equal consideration to indirect impacts should be given when discussing these concerns. An increased Town population will have impacts extending well beyond the study areas; such impacts may exceed the direct impacts occurring in Town.

In order to comply with Public Resources Code Section 21081.6, a detailed monitoring program must be developed for all required mitigation conditions. The monitoring program should include the following:

- a. Specific criteria to measure effectiveness of mitigation.
- b. Annual monitoring for a minimum of five years. Annual written reports submitted to the lead agency and the DFG.
- c. Annual monitoring reports, each of which include corrective recommendations that shall be implemented in order to ensure that mitigation efforts are successful.

Pursuant to Public Resources Code Sections 21092 and 21092.2, the DFG requests written notification of proposed actions and pending decisions regarding this project. Written notifications should be directed to this office.

If the DFG can be of further assistance, please contact Mr. Ron Bertram, Associate Wildlife Biologist or Ms. Patricia Perkins, Wildlife Management Supervisor at (916) 355-7010.

Sincerely,

James D. Messersmith Regional Manager

CHIEF ADMINISTRATIVE Or FICE

COUNTY OF BUTTE

25 COUNTY CENTER DRIVE OROVILLE, CALIFORNIA 95965-3380 Telephone: (916) 538-7631 Fax: (916) 538-7120

MEMBERS OF THE BOARD:

HASKEL A. MCINTURF

JANE DOLAN

KEVIN CAMPBELL

ED MCLAUGHLIN

LEN FULTON

April 18, 1991 DEGETVET

WILLIAM H. RANDOLPH CHIEF ADMINISTRATIVE OFFICER

Town of Paradise Planning Department 5555 Skyway, Paradise, CA 95969

TOWN OF PARADISE PLANNING

Attn: Charley Stump, Senior Planner

Subj:

Notice of Preparation of a Draft Environmental Impact Report for Town of Paradise General Plan

Revision

Dear Mr. Stump:

With regard to the matter referenced above, thank you for the opportunity to make known some County concerns. It is important that the issue of Public Services (Item 14) be carefully studied with regard to fiscal ramifications on Butte County government.

Obviously development means people and people mean services. In the case of population growth within incorporated areas, the impact stretches far beyond the town limits.

Butte County's fiscal crisis is widely known and well documented. The level of services provided by Butte County to its citizens is substandard, due to understaffing, deteriorating equipment, and aging and overcrowded facilities, among other things. All have been stretched to their limits.

Services provided by the County, directly benefitting the dual citizenry of town and county, include superior and municipal courts, criminal prosecution, family support, court mediation, probation, juvenile hall, incarceration, coroner, civil disaster, veterans services and halls, public guardian, libraries, public health, mental health, adult and youth alcohol and drug programs, environmental health, fire suppression (in the close in unincorporated but urbanized areas of the town), transportation, elections, clerk-recorder, public defender, grand jury, social services, LAFCo, public works in access to the town, assessor, treasurer-tax collector, landfill, farm and home advisory, and all of the administrative, personnel, legal, and financial activities necessary to support these.

Any project, program, or activity that does not address its fiscal impact on these services and the means by which the costs of such will be borne, is incomplete in its proposal.

Town of Paradise - General Plan, p. 2

Therefore, please consider this letter as an expression of concerns pertinent to the General Plan Revision for the Town of Paradise. I sincerely hope that the revision, when completed, will adequately address the means for financing the ever increasing need for countywide government services. Again, thank you for the opportunity to comment.

Singerel

Emmett Pogye, Deputy Administrative Officer

County of Butte

cc: Bettye Kircher, Butte County Planning Director

DEPARTMENT OF TRANSPORTATION

IISTRICT 3
I.O., BCX 942874-MS41
Jacramento, CA 94274-0001
TDD 916-741-4509
FAX 916-323-7669
316-327-3859

April 25, 1991

03-But-191 General Plan Revision Town of Paradise NOP CBUT026

Mr. Charley Stump Town of Paradise Planning Department 555 Skyway Paradise, CA 95969

Dear Mr. Stump

Thank you for the opportunity to review and comment on the above referenced document.

COMMENTS:

The DEIR should address impacts the General Plan growth will have on State Route 191. Any needed improvements should be identified.

The DEIR should also consider cumulative growth impacts from developments of neighboring jurisdictions on State Routes 99, 149E, and 70.

A detailed financial and transportation analysis should be developed to allow local roadway and mass transportation improvements be in place as development occurs.

The DEIR should consider Park and Ride lots in the transportation mitigation measures. The following Rideshare measure should also be considered:

An on-site transportation coordinator at each employment site.



TOWN OF PARADISE

Mr. Charley Stump April 25, 1991 Page 2

If you have any questions regarding this comment, please contact Lib Haraughty at 916-741-4539.

Sincerely,

ROBERT M. O'LOUGHLIN
Chief, Planning Branch C

DEPARTMENT OF FOOD AND AGRICULTURE

1220 N Street Sacramento, CA 95814

May 6, 1991

Mr. Charley Stump Town of Paradise 5555 Skyway Paradise, California 95969



TOWN OF PARADISE **PLANNING**



Dear Mr. Stump,

Thank you for the opportunity to comment on the forthcoming Draft Environmental Impact Report (DEIR) for Paradise General Plan Revision (SCH# 91043055). This project involves revision to all Elements of the Paradise General Plan.

The California Department of Food and Agriculture (CDFA) would appreciate a discussion of the following issues in the DEIR:

- A complete description of the planning area. This should include current and planned land use designations, the number of acres in agricultural production, soil classifications and acreages, and cropping history.
- Whether any land under a Williamson Act contract or in an Agricultural preserve is part of, or near to the planning area. How will development affect these designations?
- The possible mitigation measures to ensure that agricultural 3. land is not prematurely or unnecessarily converted to nonagricultural uses. These measures can include use of the Williamson Act, deed disclosures, a Right-to-Farm Ordinance, phased development, clustered development, transfer of development rights, and requiring infill development of vacant land prior to urban expansion.
- The interface conflicts which can arise from adjacent 4. agricultural and urban uses. Problems can arise due to noise, dust, chemical usage, trespassing, and traffic conflicts. Include any buffering measures (ie. buffers, setbacks, berms, fencing, etc.) proposed for the development.
- 5. The pressure this project could create to convert surrounding agricultural land to non-agricultural uses. Does this project have the potential to be precedent setting?
- 6. Whether development of the area will create patterns of discontiguous growth. If so, is development necessary at this time?
- 7. Given the projected need for residential and urban development, what is the cumulative impact to agriculture from



this and other projects in the region?

Since the above issues are not necessarily comprehensive, the lead agency should also request comments from concerned local agencies. These agencies can include the agricultural commissioner's office, the USDA Soil Conservation Service office, and the county Farm Bureau Federation office.

The CDFA supports the right of local agencies to develop and implement land-use policy in its area of influence. However, the CDFA also wants to assure that agricultural land is not prematurely and irreversibly lost due to development which is not accurately assessed for environmental impact.

Sincerely, hary hichally

Mary McNally

Graduate Student Assistant

Agricultural Resources Branch

(916) 322-5227

cc: Mr. Charley Stump

Office of Planning and Research

Butte County Agricultural Commissioner

California Association of Resource Conservation Districts



Butte County AIR POLLUTION CONTROL DISTRICT

9287 MIDWAY, SUITE 1A DURHAM, CALIFORNIA 95938 (916) 891-2882

May 30, 1991

Charles Stump Town of Paradise Planning Department 5555 Skyway Paradise, CA 95969



Dear Mr. Stump:

The Butte County Air Pollution Control District has reviewed the Town of Paradise General Plan Update, Environmental Setting, Draft Working Paper #1 section that pertains to air quality and offers the following comments.

The pollutants that are measured in Chico are: nitrogen dioxide, nitrogen oxides, carbon monoxide, ozone, and PM10 (particulate matter smaller than 10 microns in diameter). The monitoring station in Biggs was removed from service in February of 1990.

The superscript on Tables 4-3, 4-4, and 4-6 should be located outside of the parentheses so as not to appear as parts per million squared or parts per million to the 7th degree.

The concentration levels on Table 4-4 are incorrect for the years 1981 to 1988 inclusive. Please amend the columns to reflect the correct concentration levels recorded for those years.

Paradise is designated as non-attainment for ozone only. The Paradise area attains the State health-based standards for nitrogen dioxides, sulfur oxides, lead, and sulfates. The area is as yet unclassified for the pollutants carbon monoxide, hydrogen sulfide, and visibility reducing particles.

If you have any questions regarding the aforementioned comments, please contact this office at 891-2882. Thank you.

Sincerely,

Nancy Norman

Nancy Norman

Deputy Air Pollution Control Officer

NN:nn

The attached copies of Draft Working Paper #1, pages 14-18, dealing with vegetation has been reviewed by some members of the California Native Plant Society. Suggested changes are noted in red; all are deletions and there are no suggested additions. If more detail or something more formal is needed, let me know.

Paul D. Reiling

872-3670

June 12, 1991

P.S. At its last Board Meeting, the Mt Lassen Chapter of the California Native Plant Society designated me as its representative with respect to the Paradise General Plan.

Its full address is:

Mount Lassen Chapter, CNPS Herbarium, Dept. of Biol. Sci. California State University Chico, CA 95929-0515



TOWN OF PARADISE PLANNING



basins, channel improvements, and culvert upgrading are implemented to the extent that funding and regulatory authority with respect to new development permits.

6.0 VEGETATION AND WILDLIFE

Vegetation

Several natural vegetation communities occur within the Paradise Study Area, including chaparral, non-native grassland, riparian woodland, Great Valley cottonwood riparian forest, foothill woodland, digger pine - oak woodland, Ponderosa pine forest, and northern hardpan vernal pool, all of which are described below.

Chaparral

The Chaparral or sclerophyllous woodland is an association of tall, evergreen, woody shrubs which dominates many sites within the Paradise region that are open and dry or in various stages of a post-burn succession. Although characterized as a brushland, chaparral formations are often interspersed with grasses and scattered trees and thus integrate with the other vegetation communities. The shaparral community is often composed of locally dominant species of shrubs along with an admixture of many other species. The dominant shrubs of typical communities are chamise (Adenostoma sp.), toyon (Heteromeies aroutifolia), several manzanitas (Arctostaphylos), California lilac (Ceanothus spp.), bitter cherry (Prunus emarginata), scrub oak (Quercus dumosa), redbud (Cercis occidentalis), yerba santa (Eriodiczyon californicum) and mountain manogany (Cercocarpus beruloides). Chaparral formations occur most prominently on the slopes adjacent to the canyons of Butte Creek and the West Branch of the Feather River, the ridge surfaces and valley sides in south Paradise and in areas which have been cleared, heavily logged or recently burned.

Non-native Grassland

The non-native grassland consists of a dense to sparse cover of annual grasses with flowering culms, often associated with numerous species of showy-flowered, native annual wildflowers, especially in years of favorable rainfall. With few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds. This vegetation type occurs in the valleys and

Not in the Paratos



foothills of most of California, on fine-textured, usually clay soils, moist or even waterlogged during the winter rainy season and very dry during the summer and fall.

Riparian Woodland

The riparian woodland occurs as narrow strips of dense brush and trees along the water courses of south Paradise and around the localized drainage basins to the north. The dominant riparian trees are willow (Salix sp.), white alder (Alnus rhombifolia), western sycamore (Platanus racemosa), Fremont cottonwood (Populus fremontii), California laurel (Embellularia californica), big-leaf maple (Acer macrophyllum), quaking aspen (Populus tremuloides), and western dogwood (Comus nuttallii). Prominent as understory and vinelike plants are poison oak (Toxicodenaron diversilobum), California wild grape (Vitis californica), wild blackberry (Rubus spp.) and elderberry (Sambucus mexicana). This association has been greatly disrupted by development along the various watercourses which drain southwesterly across the ridge surfaces of Paradise.

Great Valley Cottonwood Riparian Forest

The Great Valley cottonwood riparian forest is a dense, broadleafed, winter deciduous riparian forest dominated by Fremont cottonwood (*Populus fremontii*) and Goodding's willow (*Saiix gooddingii variabilis*). Understories are dense, with abundant vegetative reproduction of canopy dominants. Scattered seedlings and saplings of shade-tolerant species such as California box elder (*Acer negundo californica*) or Oregon ash (*Frazinus latifolia*) may be found, but frequent flooding prevents their reaching into the canopy. These sites are inundated yearly during spring, resulting in annual inputs of nutrients, soil, and new germination sites. This vegetation community was formerly extensive along the major low-gradient (depositional) streams throughout the Central Valley, but is now reduced to scattered, isolated remnants or young stands because of flood control, water diversion, agricultural development, and urban expansion. Approximately 1200 acres of this sensitive vegetation community occurs within the Dry Creek floodplain.



Foothill Woodland

The foothill woodland extends across the extreme southern portions of the Town and dominates the ridge surfaces to elevations of 1300 feet. The primary floral elements of this woodland are blue oak (Quercus douglasii), interior live oak (Quercus wizlizenii) and digger pine (Pinus sabiniana). Above 1500 feet these species give way to canyon live oak (Quercus chrysolepis), tanbark oak (Lithocarpus densiflora) and black oak (Quercus kelloggii). Several species of shrubs provide an understory to this open woodland. Prominent in this community are manzanita (Arctostaphylos sp.), California lilac (Ceanothus sp.), Chamise (Adenostoma fascicularum), yerba santa (Eriodictyon californicum), poison oak (Toxicodenaron diversilobum) and several members of the rose family (e.g. the genera Prunus, Rubus and Rosa).

Digger Pine-Oak Woodland

This woodland is a mixture of digger pine (*Pinus sabiniana*) and blue oak (*Quercus dougiasii*). Pure stands of either tree do occur, but mixed stands are more common. *Pinus sabiniana* usually towers over the oaks in undisturbed stands. Understories usually are dominated by introduced annuals. This vegetation type occurs on well-drained sites with Mediterranean climate, in rocky or exposed sites along ridges or canyons with poor or shallow soils.

Westside Ponderosa Pine Forest

The Ponderosa pine forest occurs as a broad transitional zone between the foothill woodland and higher mixed coniferous associations and is most extensive above 1,500 feet elevation in Paradise. It is generally a closed forest dominated by Ponderosa pine (Pinus ponderosa). The closely related Jeffrey pine (Pinus jeffreyi) occurs locally on drier sites and serves as a specific indicator of ultrabasic and serpentine rock outcroppings. The Ponderosa pine zone has been the most heavily logged of all the communities in northern California and this practice has allowed the encroachment of other woody species into areas formerly covered by pines. The Ponderosa and Jeffrey pines are found locally intermixed with incense-cedar (Calocedrus decurrers),

27



Douglas-fir (*Pseudotsuga menziesii*), white fir (*Abies concolor*), black oak and several additional hardwood species including big leaf maple, western dogwood and California laurel. The ponderosa pine forest zone represents the primary habitat type utilized for development in the Paradise area.

Northern Hardpan Vernal Pool

Located within close proximity of the Tertiary Study Area is a documented vernal pool community classified by the California Natural Diversity Data Base(CNDDB) as Northern Hardpan Vernal Pool. These pools are ephemeral wetands that occur when winter and spring rains fill the depressions in hogwallow or mima mound areas. Several sensitive plant species occur in association with the northern hardpan vernal pool community: Hoover's spurge (Chamaesvce hooverii, Federal Category 1: State-None) and hairy Orcutt grass (Orcuttia pilosa. Federal-Candidate Category 1; State-Endangered), Green's tuctoria (Tuctoria greenei, Federal-Candidate Category 1; State-Rare), and Shippee meadowfoam (Limnanthes floccosa ssp. californica, Federal-Category 1; State-Endangered).

Federal Category 2 candidate species for Federal listing comprise taxa for which information now in possession of the U.S. Fish and Wildlife Service indicates proposing to list the species as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat(s) are not currently available to support proposed rules at this time. Federal Category 1 candidate species comprise taxa for which the Service has sufficient biological information to support a proposal to list as endangered or threatened.

Other sensitive species with reported occurrences within or near the Study Area include California hibiscus (Hibiscus californicus. Federal-Category 2; State-None), which occurs in moist, freshwater-soaked river banks and low peat islands in sloughs, marshes and swamps; Butte County checkerbloom (Sidalcea robusta, Federal-Category 2; State-None), which occurs in small draws and rocky crevices in chaparral and cismontane woodland communities; closed-throated beardtongue (Penstemon-personarus, Federal-Category 2; State-None), which usually occurs on north-facing slopes in metavolcanic soils in lower and upper montane coniferous forest communities; California beaked-rush (Rivnchospora californica, Federal-Category 2;



the Paralis come.

State-None), occurring in freshwater seeps and open marshy areas of meadows, marshes and swamps.

Sensitive plant species with the potential to occur within or near the Study Area include Ahart's paronychia (Paronychia ahartii, Federal-Category 2; State-None), which occurs in stony, nearly barren clay of swales and higher ground around vernal pools in valley and foothill grassland communities; and veiny monardella (Monardella douglasii var. venosa, Federal-Category 2; State-None), which also occurs in valley and foothill grasslands; adobe lily (fritillaria pluriflora); Butte County fritillary (Fritillaria eastwoodias); Red Bluff dwarf rush (Juncus leiospermus var. leiospermus); Bidwell's knotweed (Polygonum bidwelliae); Butte morning glory (Calystegia atriplicifolius); and clustered lady slipper orchid (Cypripedium fascicularum). Appendix B contains a partial listing of common and sensitive plant species found within and in the vicinity of the Study Area.

[A field reconnaissance will be conducted of the study areas at the appropriate time of year to verify the information included in this section.]

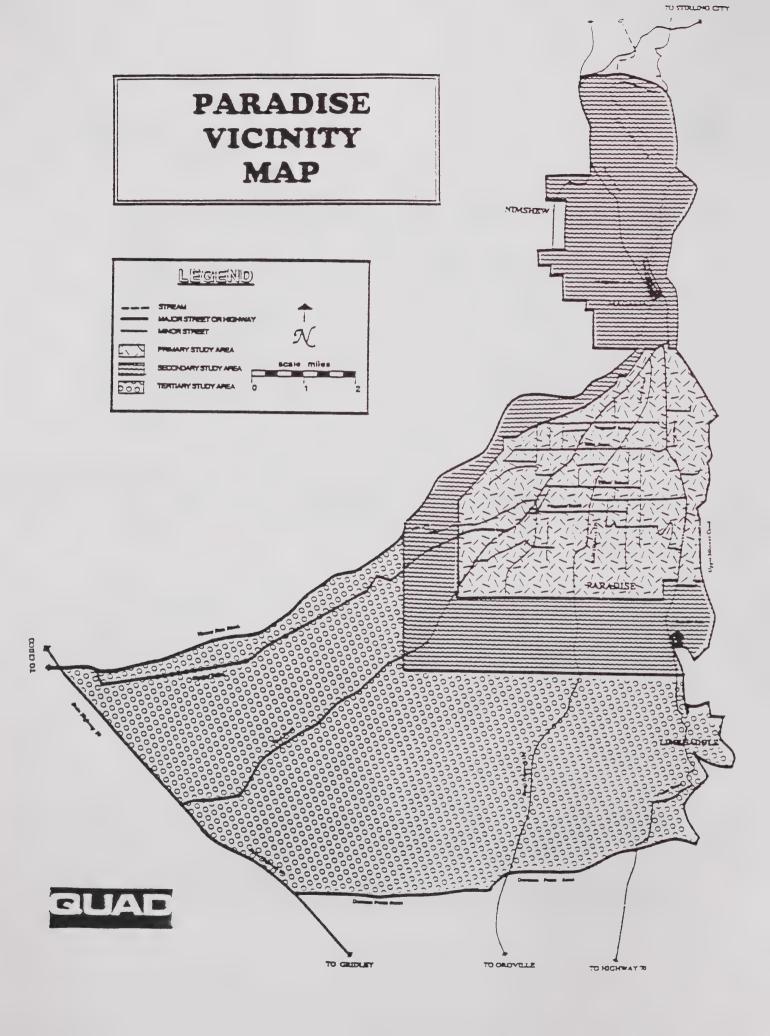
Wildlife

Wildlife reported for the Town of Paradise and the Study Areas is typical of the transitional foothill habitat types found on the western flank of the Sierra plateau. Appendix B contains a partial listing of common and sensitive wildlife species which occupy the habitats within Paradise and adjacent Butte County. This list is not meant to represent a comprehensive survey of the resident and migratory wildlife. The urbanized portions of Paradise are inhabited by a wide diversity of wildlife. No threatened, endangered or candidate wildlife species have been documented within the Paradise Study Area.

Sensitive Wildlife Species

Currently there are eight species of sensitive wildlife found in the general region (Appendix B). None of these species has been recorded by the Natural Diversity Data Base within the Study Area. These species include the western yellow billed cuckoo (Coccyzus americanus occidentalis), California red-legged frog (Rana aurora draytoni), foothill yellow-legged frog (Rana boylei), American badger (Taxidea taxus), golden eagle (Aquila chrysaetos),

) NS





PARADISE IRRIGATION DISTRICT

IEMBER OF ASSOCIATION OF CALIFORNIA WATER AGENCIES AND AMERICAN WATER WORKS ASSN

5325 BLACK OLIVE DRIVE - PARADISE, CALIFORNIA 95967-0128 - Telephone: (916) 877-1971 - MAILING ADDRESS: P.O. BOX 128

June 13, 1991

Charley Stump Senior Planner Town of Paradise 5555 Skyway Paradise, CA 95969

RE: General Plan Revision

Dear Charley:

DEGETVED NUN 17 1991

TOWN OF PARADISE

This is in response to your request for comments to Working Paper #1 and your invitation to participate in the General Plan revision process through a PID representative on one of several subcommittees.

Concerning Working Paper #1, I am enclosing copies of pages 46 and 47 on which I have made suggested changes intended to improve accuracy or clarify intent. Concerning section 17.12.8 "Water Service", it is suggested the last sentence of that section be deleted or expanded to clarify its need and objective.

Regarding subcommittee representation, individual Directors have indicated they are unable to participate directly. As a body they did indicate they would expect staff to assist as much as possible. Unfortunately at this time we are unable to participate as a committee member. We will, however, continue to provide input as needed and could be available to meet with any committee should that become desirable.

Thank you for the opportunity to provide these comments.

Very truly yours,

C. Phillip Kerly, Jr.

Manager

CPK:kw

Enclosure

cc: Directors

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Ansid.....



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- Add, by June of 1993, filtration capacity to enable the District to meet revised Federal and State water/quality standards. The District can currently provide filtration treatment for million gallons per day, and is proposing to expand that capacity to 25 million gallons per day.
- Supplement its existing surface water supply, deemed by the District to be sufficient to serve community growth to 1996, by adding reservoir capacity, developing a supplementary groundwater source, or purchasing surface water, or any combination of these options.
- Replace a significant percentage of the older portion of its 177 mile distribution system, to both improve fire protection to existing developed areas and allow new development in accord with modern fire protection requirements.

Del Oro Water Company

The Del Oro Water Company's Paradise Pines and Magalia service areas have relevance to the Town of Paradise water planning program only if the areas were to be annexed to the Town or if their water supply sources conflicted with proposed additional water supplies essential to maintain Town growth.

The Lime Saddle service area's water system planning is of greater relevance. It is evident that continued urban growth in the area may significantly impact community resources from a planning standpoint, and there is potential for further annexation to the Town of new subdivisions in the area. Del Oro Water Company has recently undertaken the legal and physical steps essential to obtain a supplemental water supply from Lake Oroville to serve further planned urban development in the Lime Saddle area.

14.9 WASTEWATER

The Town of Paradise is the largest unsewered incorporated community in California. Wastewater treatment facilities within the Town consist of individual privately owned septic tanks and soil absorption disposal systems known as leach fields, together with several engineered subsurface disposal systems serving commercial and institutional facilities. In anticipation of an eventual need for centralized wastewater management facilities, portions of a future sanitary sewer system have been constructed along the Skyway. However, there are no existing connections to the system. Businesses and residences in the vicinity of the future

* Carront water supply planning is based on the assumption that the exist landers zoning within District boundries 47 will not change significantly. She significant zoning changes occur which allowed greater population des maintaining an adequate water supply would become more difficult.



In addition to providing youth activities, the District is also one of the largest employers of youth in the community.

State and Federal parks and facilities are also used by residents of the Study Area. These facilities are listed in Table 144. In addition to the parks and facilities listed in Tables 14-3 and 14-4, there are a number of public and private trails which are used by the public for walking, jogging, bicycle and horseback riding. These trails are listed in Table 14-5.

14.3 WATER SERVICE

9.802

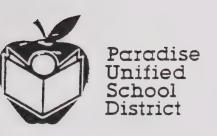
The Primary and Secondary Study Areas are served by two water purveyors: Paradise Irrigation District and Del Oro Water Company. Of these, Paradise Irrigation District is the major supplier, with approximately 9,780 service connections serving about 95% of the incorporated town. Del Oro Water Company serves Paradise Pines District, a large unincorporated, rural residential community immediately north of Paradise, with a population of approximately 9,000, and Magalia District (a County Water District recently acquired by the Del Oro Water Company), serving about 400 acres between Paradise Pines and the Town of Paradise, and providing water to approximately 300 households and fifteen businesses. It also serves the Lime Saddle District, 2,750 acres extending south from the Town of Paradise to Lake Oroville. A small urbanized area of the Lime Saddle District has been annexed to the Town of Paradise; it is an urbanizing district with planned service to more than 1,000 homes (see Figure 14-2 for water purveyor boundaries).

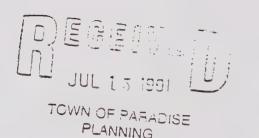
Paradise Irrigation District

The District obtains its water from a series of two reservoirs on Little Butte Creek (Magalia Reservoir and Paradise Reservoir). The reservoir system has a storage capacity of 14,140 acre feet, and the firm annual yield is calculated at 3,130 7,860 acre feet. Water is transported to the Town through a single transmission line. Distribution lines, booster pumps and surface-level tank reservoirs serve various pressure zones throughout the Town. Calculated per capita water usage has varied since 1980 from 245 to 289 gailons per day.

The Paradise Irrigation District staff indicates that the District must, subject to voter financing approvais, undertake three major steps to enable its functions - water supply and distribution - toybo neith

anticipated keep pace with





5065 Recreation Drive Paradise, California 95969 Telephone (916) 872-6400 Fax (916) 872-6409

Richard T. Landess, Ed.D.

District Superintendent

July 15, 1991

Mr. Charley Stump Senior Planner Town of Paradise 5555 Skyway Paradise, CA 95969

Dear Charley:

Enclosed please find a copy of the "Schools" section of the working paper #1 for the General Plan Revision. I have highlighted a few areas that I feel are incorrect or that need to be changed. Hopefully these changes can be incorporated into the draft.

Change #1 - Page 44, Paragraph 2

End the last sentence after year with a period and delete "and actually decreases during some years." Add a sentence stating, "Although some years have shown decreases, the average rate of increase from 1986-87 through 1990-91 was 3.29%."

Change #2 - Page 44, Paragraph 3, Sentence 2

This sentence should read, "The District owns another school site in the Upper Ridge and plans to build a new school as soon as possible (probably a middle school)."

Change #3 - Table 14-2

The 1990-91 school year should read, "Enrollment 4,674; Net Change 161; Percent Change 3.56."

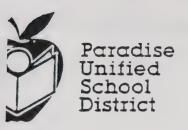
If you have any questions regarding these three changes, please do not hesitate to contact me.

Sincerely,

Richard T. Landess

Superintendent

RTL:lee Enclosure



5065 Recreation Drive Paradise, California 95969 Telephone (916) 872-6400 Fax (916) 872-6409

Richard T. Landess, Ed.D.

District Superintendent

July 16, 1991

Mr. Charley Stump Senior Planner Town of Paradise 5555 Skyway Paradise, CA 95969

Dear Mr. Stump:

The Board of Trustees of the Paradise Unified School District feels strongly that policies, goals and objectives that would require future developments in the Town of Paradise to mitigate all impacts should be incorporated into the General Plan at this time. We would like to suggest that the following statements be placed in the General Plan:

Unless assurance is obtained that an adequate level of all public facilities, including schools, will be available to future residents, no discretionary land use action shall be taken to increase density of use. The assurance shall include details of how any impacts identified as a result of the proposed land use actions are to be mitigated.

A policy such as this placed in the General Plan would allow the Council to adopt ordinances which would guarantee that the citizens in the Town would be provided with necessary services as the Town grows. If the quality of the educational experience for the students of Paradise is to remain the same or improve, a policy statement of this type is essential.

If you have any questions regarding our request, please do not hesitate to contact me.

Sincerely,

Richard T. Landess

Richard J. Landess

Superintendent

RTL: lee

DEPARTMENT OF FISH AND GAME

REGION 2 1701 NIMBUS ROAD, SUITE A RANCHO CORDOVA, CALIFORNIA 95670



Charley Stump Senior Planner Tewn of Puradise 5555 Skyway Paradise, CH 95969

TOWN OF PARADISE COMMUNITY DEVELOPMENT DEPT.

DFC 18 1991

RECEIVED

December 16, 1991



DELY MY, STUMP:

Enclosed are listings of sensitive plant and animal species which do or may occur in the study areas for the Paradise Plan Revision Program. Specifically mapped for any of these species are limited to those shown on the Breas of special Bielogical Importance maps at the Butte County Planning Department and to those recorded by the Natural Diversity Data Base, neither of which is comprehensive.

In addition to the enclosed listings, the following species are pertinent to the study areas:

Amonibians

Northern red-legged frog (Runa anrora aurora)
Footh. Il yellow-legged frog (Runa boviii)

Reptiles

Western pond tartle (<u>Clemmus marmorata</u>)

Cal.fornia horned lizerd (<u>Phrunesoma cerenatum frontale</u>)

15: -ds

Burrou's yoldeneye (Buceshala islandica)

Cooper's hawk (Accipiter cooperi)

Sharp-shimned numbe (Accipiter striatus)

Northern goshawic (Accipiter gentils)

Golden engle (Aquila chrusaetos)

Ferruginous hawk (Buteo regalis)

Northern harrier (Circus evaneus)

Osprey (Pundion haliaetus)

Merlin (Falso columburius)

Prairie Falcon (Falco mexiconus)

Short-eared owl (Asia flummens)

Long-eured out (Asio etus)

Burrowing oul (Athene cunicularia)

spotted out (strix occidentalis)

Purple martin (Progne subis)

Yellow worbler (Dendroico petechia brewsteri)

Yellow-breasted chat (Icteria virens)

Mammels

Townsend's western big-eared but (Piecotus townsend.: townsend.:)

California mustiff but (Eurnorus perotis)

American budger (Taxidea taxus)

If I can be of further assistance please call me at 343-2804

Jumes H. Snowden Jumes H. Snowden 721 Cessua Ave.

Chico 95928

SENSITIVE VASCULAR PLANTS OF BUTTE COUNTY

This compilation contains those species occurring in Butte County which are listed as special concern, rare, threatened or endangered by the U.S. Fish and Wildlife Service (Fed), the California Department of Fish and Game (DFG) or the California Native Plant Society (CNPS).

I. Species Locations

In this section, Butte County U.S.G.S. topographic quads are listed. Following each quad are two groups of coded plant listings: group one contains those plants documented to be in the quad; group two contains those plants for which their habitat type occurs in the quad. The plant codes are derived from the first two letters of the scientific name (e.g.) Clarkia mildrediae = Clmi) listed, section II.

Bangor: 1) JuLe, Qulo. 2) Aspa, Caop, Cuho, Frpl, Jubu, Migl, Modo, Oplu, Paah, Phra, Pobi, Rhea, Siro, Stdr.

Berry Creek: 1) Clmo, Frea, Sasa, Seeu. 2) Caop, Clmi, Cyca, Cyfa, Leca, Pene, Pepe, Phva, Sefo, Sioc.

Bidwell Bar: 2) Aspa, Asra, Caop, Clmo, Frpl, Jule, Migl, Phva, Pobi, Rhca, Seeu, Siro, Stdr, Stto.

Biggs: 1) Qulo, Tugr. 2) Frpl, Grhu, Jubu, Jule, Lela, Modo, Mymi, Oplu, Paah.

Brush Creek: 1) Bama, Frea, Leca. 2) Clmi, Coca, Cyca, Cyfa, Luda, Mila, Pene, Pepe, Phva, Sasa, Sefo, Sioc.

Butte City: 1) Asra, Grhu, Hica, Lela, Qulo.

Butte Meadows: 1) Clpa, Sioc. 2) Coca, Cyca, Cyfa, Ermi, Frea, Leca, Luda, Mila, Pene, Pepe, Phva, Sasa, Sefo, Stob.

Cascade: 1) Luda. 2) Aspa, Clmi, Coca, Cyca, Cyfa, Frea, Leca, Mila, Pene, Pepe, Phva, Sasa, Seeu, Sefo, Sioc.

Cherokee: 1) Frea, Frpl, Jule, Modo, Qulo, Siro. 2) Caop, Cuho, Jubu, Migl, Mymi, Oplu, Paah, Phya, Pobi, Rhca, Seeu, Stdr, Stto.

Chico: 1) Frea, Frpl, Jubu, Lifl, Modo, Mymi, Qulo, Siro. 2) Cuho, Jule, Lela, Oplu, Paah, Pobi, Rhca, Tugr.

Clipper Mills: 2) Artr, Aspa, Asra, Bama, Caat, Capa, Clmi, Cyca, Cyfa, Frea, Leca, Ludo, Pene, Pepe, Phva, Sasa, Seeu, Sefo, Sioc.

Cohasset: 1) Capa, Jule, Siro, Stto. 2) Aspa, Asra, Caop, Cuho, Frpl, Phva, Pobi, Rhca, Seeu, Sefo, Stdr.

Forbestown: 1) Clmo. 2) Aspa, Asra, Clmi, Frea, Frpl, Leca, Luda, Pene, Pepe, Phva, Sasa, Seeu, Sefo, Sioc, Stto.

Gridley: 1) Qulo. 2) Frpl, Grhu, Jule, Lela, Migl, Modo, Mymi, Oplu, Paah, Tugr.

Hamlin Canyon: 1) Chho, Frea, Hica, Jubu, Lifl, Mymi, Qulo, Siro, Tugr. 2) Caop, Cuho, Frpl, Jule, Migl, Modo, Oplu, Paah, Pobi, Rhca, Stdr.

Honcut: 1) Jule, Paah, Qulo. 2) Asra, Caop, Cuho, Frpl, Grhu, Jubu, Lela, Migl, Modo, Mymi, Ophu, Rhca, Siro, Tugr.

Kimshew Point: 1) Pepe. 2) Aspa, Clmi, Coca, Cyca, Cyfa, Ermi, Frea, Leca, Luda, Mila, Pene, Phva, Sasa, Seeu, Sefo, Sioc.

Jonesville: 1) Clpa, Stob, Pene. 2) Coca, Cyca, Cyfa, Ermi, Luda, Pepe, Phva, Sasa.

Las Plumas: 1) Clmo. 2) Asra, Caop, Frpl, Leca, Phva, Pobi, Rhca, Seeu, Siro, Stdr, Stto.

Llano Seco: 1) Hica, Qulo. 2) Frpl, Grhu, Jubu, Lela, Modo, Paah.

Loma Rica: 2) Asra, Caop, Cuho, Frpl, Jubu, Jule, Migl, Modo, Mymi, Oplu, Paah, Phva, Pobi, Rhca, Siro, Stdr.

Nelson: 1) Hica, Qulo. 2) Frpl, Grhu, Jubu, Lela, Modo, Mymi, Ophu, Paah.

Nord: 1) Cafr, Lifl, Qulo. 2) Jubu, Jule, Lela, Migl, Modo, Mymi, Oplu, Paah, Tugr.

Ord Ferry: 1) Hica, Qulo. 2) Grhu, Lela.

Oroville: 1) Aspa, Caop, Jule, Lifl, Mymi, Qulo. 2) Asra, Cuho, Frpl, Jubu, Migl, Modo, Oplu, Paah, Pobi, Rhca, Siro, Stdr, Tugr.

Palermo: 1) Qulo. 2) Asra, Cuho, Frpl, Jubu, Jule, Migl, Modo, Mymi, Oplu, Paah, Pobi, Rhca, Siro, Stdr.

Paradise East: 1) Artr, Caat, Frea, Seeu. 2) Aspa, Caop, Clmi, Cyca, Cyfa, Frea, Leca, Luda, Mila, Pene, Pepe, Phva, Rhca, Sasa, Sefo, Sioc, Stdr, Stto.

Paradise West: 1) Qulo, Rhca, Siro. 2) Asra, Caop, Cuho, Frea, Frpl, Phva, Pobi, Rhca, Seeu, Stdr, Stto.

Pennington: 1) Grhu, Hica, Lela, Mymi, Qulo.

Pulga: 1) Brpo, Leca, Pepe, Seal, eeu. 2) Aspa, Clmi, Coca, Cyca, Cyfa, Ermi, Frea, Frpl, Luda, Mila, Pene, Phva, Sasa, Sioc, Stob, Stdr, Stto.

Rackerby: 2) Asra, Caop, Cuho, Frpl, Jubu, Migl, Phva, Pobi, Rhca, Seeu, Siro, Stdr.

Richarson Springs NW: 1) Cafr, Chho, Frpl, Tugr. 2) Caop, Cuho, Jule, Migl, Oplu, Paah, Pobi, Rhca, Siro, Stdr.

Richardson Springs: 1) Frpl, Jule, Lifl, Modo, Paah, Qulo, Rhca, Siro. 2) Jubu, Migl, Mymi, Oplu, Pobi, Seeu, Stdr, Tugr.

Sanborn Slough: 1) Grhu, Hica, Lela, Qulo.

Shippee: 1) Frpl, Lifl, Qulo. 2) Jubu, Jule, Lela, Migl, Modo, Oplu, Paah, Pobi.

Strawberry Valley: 1) Leca. 2) Aspa, Clmi, Cyca, Cyfa, Frea, Luda, Mila, Pene, Pepe, Phva, Sasa, Seeu, Sefo, Sioc.

Stirling City: 1) Artr, Capa, Frea, Seeu, Stto. 2) Aspa, Clmi, Leca, Mila, Pene, Pepe, Phva, Sefo, Sioc.

Vina: 2) Cuho, Frpl, Jubu, Jule, Lela, Migl, Modo, Mymi, Oplu, Paah, Tugr.

West of Biggs: 1) Grhu, Hica, Lela, Qulo.

II. Listed Species

Each entry below provides information in this order:

1) Scientific name; 2) common name; 3) general location by U.S.G.S. quad; 4) listing status in the order of Fed., DFG or CNPS; 5) the species habitat type; 6) the species plant family. For administrative convenience, the formal standard of underlining the scientific name is omitted. These listing codes are used below:

R - rare

T - threatened E - Endangered

C - candidate (1 or 2) 1A, 1B, 2, 3 or 4 - CNPS

- 1. Arctostaphylos truei (True's manzanita). Paradise East and Stirling City quads. CNPS list 3. Chaparral. Ericaceae family.
- 2. Astragalus pauperculus (depauperate milk vetch). Oroville quad. CNPS 4. Lower montane conifer forest, valley and foothill grassland. Fabaceae family.
- Astragalus rattanii var. jepsonianus (Jepson's milk vetch). Butte City quad. CNPS 3. mixed hardwood - conifer woodland. Fabaceae family.
- 4. Balsamorhisa macrolepis var. macrolepis, (balsamroot). Brush Creek quad. CNPS 3. Lower montane conifer forest, valley and foothill grassland. Asteraceae family.
- 5. Bromus polyanthus (great basin brome grass). Pulga quad. CNPS 3. Habitat uncertain. Poaceae family.
- 6. Calycadenia fremontii (Fremont's calycadenia). Nord and Richardson Springs NW quads. Fed C 2, CNPS 3. Cismontane woodland, valley and foothill grasslands. Asteracea family.
- 7. Calycadenia oppositifolia (Butte County calycadenia).
 Oroville quad. CNPS 4. Chaparral, cismontane woodland, valley and foothill grasslands. Asteraceae family.
- 8. Calystegia atriplicifolia (Butte County morning-glory).
 Paradise East quad. CNPS 3. Lower montane conifer
 forest. Convolvulaceae family.
- 9. Cardamine pachystigma var. dissectifolia (dissected-leaf toothwort). Cohasset and Stirling City quads. CNPS 3. Habitat uncertain. Brassicaceae family.
- 10. Chamaesyce hooveri (Hoover's spurge). Hamlin Canyon, Richardson Springs NW and Nord quads Fed C 1, CNPS 1B. Vernal pools. Euphorbiaceae family.
- 11. Clarkia mildrediae (Mildred's clarkia). Quads uncertain. CNPS 4. Lower montane conifer forest. Onagraceae family.
- 12. Clarkia mosquinii ssp. mosquinii (Mosquinin's clarkia).
 Berry Creek quad, Fed C2, CNPS 1A. Cismontane woodland.
 Onagraceae family.
- 13. Clarkia mosquinii ssp. xerophila (Enterprise clarkia). Forbestown quad. CNPS 1A. Cismontane woodland. Onagraceae family.

- 14. Claytonia palustris (marsh claytonia). Butte Meadows and Jonesville quads. CNPS 3. Montane marsh. Portulacaceae family.
- 15. Corydalis caseana ssp. caseana (Sierra corydalis). Quads uncertain. CNPS 4. montane wetlands, upper montane conifer forest. Papaveraceae family.
- 16. Cuscata howelliana (Boggs lake dodder). Quads uncertain. CNPS 4. Chaparral and vernal pools. Cuscutaceae family.
- 17. Cypripedium californicum (California lady's-slipper).
 Quads uncertain. CNPS 4. Lower montane conifer forest.
 Orchidaceae family.
- 18. Cypripedium fasiculatum (clustered lady's-slipper). Quads uncertain. CNPS 4. Lower montane conifer forest. Orchidaceae family.
- 19. Erigeron miser (starved daisy). Quads uncertain. CNPS 4. Upper montane conifer forest. Asteraceae family.
- 20. Fritillaria eastwoodiae (Butte County fritillary). Berry Creek, Brush Creek, Cherokee, Chico, Hamlin Canyon, Paradise East and Stirling City guads Fed C 2, CNPS 3. Chaparral, cismontane woodland, lower montane conifer forest. Liliaceae family.
- 21. Fritillaria pluriflora (adobe lily). Cherokee, Chico, Nord, Richardson Springs, Richardson Springs NW and Shippee quads. Fed 2, CNPS 1B. Chaparral, cismontane woodland, valley and foothill grasslands. Liliaceae family.
- 22. Hibiscus californicus (California hibiscus) Butte City, Hamlin Canyon, Llano Seco, Nelson, Ord Ferry, Pennington, Sanborn Slough, Shippee and West of Biggs quads. Fed C 2, CNPS 1B. Marshes and riparian stream channels, rarely in drain ditches or canals. Malvaceae family.
- 23. Juncus bufonius var. congdonii (toad rush). Chico and Hamlin Canyon quads. CNPS 4. Valley and foothill grasslands, vernal pools. Juncaceae family.
- 24. Juncus leiospermus var. ahartii (Ahart's dwarf rush), Bangor quad. Fed C 1, CNPS 1B. vernal pools. Juncaceae family.

- 25. Juncus leiospermus var. leiospermus (Red Bluff dwarf rush). Cherokee, Cohasset, Honcut, Oroville and Richardson Springs quads. Fed C2, CNPS 1B. Chaparral, cismontane woodland, vernal pools and swales. Juncaceae family.
- 26. Lewisia cantelowii (Cantelow's lewisia). Brush Creek, Pulga and Strawberry Valley quads. CNPS 1B. Broadleaved upland forests, lower montane conifer forest (rock outcrop). Portulacaceae family.
- 27. Limnanthes floccosa ssp. californica (Shippee or Butte County meadowfoam). Chico, Hamlin Canyon, Nord, Oroville, Riochardson Springs and Shippee quads. Fed C1, DFG E, CNPS 1B. Vernal pools, valley and foothill grasslands. Limnanthaceae family.
- 28. Lupinus dalesiae (Quincy lupine), Cascade and Rackerby quads. Fed C2, CNPS 1B. lower montane conifer forest. Fabaceae family.
- 29. Mimulus glaucescens (shield-bracted monkey flower). Chico and Hamlin Canyon quads. CNPS 4. Cismontane woodland, valley and foothill grasslands. Scrophulariaceae family.
- 30. Mimulus laciniatus (cut-leaved monkey flower). Quads uncertain. CNPS 4. Lower montane conifer forest, upper montane conifer forest. Scrophulariaceae family.
- 31. Monardella douglasii var. venosa (veiny monardella). Cherokee, Chico, Rackerby and Richardson Springs quads. Fed C2, CNPS 1A. Valley and foothill grasslands, Lamiaceae family.
- 32. Myosurus minimus ssp. apus (little mousetail) Chico, Hamlin Canyon, Oroville and Pennington quads. Fed C2, CNPS 3. Vernal pools. Ranunculaceae family.
- 33. Ophioglossum lusitanicum ssp. californicum (California adders-tongue fern). Quads uncertain. CNPS 4. Vernal pools. Ophioglossaceae family.
- 34. Paronychia ahartii (Aharts paronychia). Honcut and Richardson Springs quads. CNPS 1B. Valley and foothill grasslands. Caryophyllaceae family.
- 35. Penstemon personatus (close-throated beardtongue).

 Kimshew Point and Pulga quads. Fed C 2, CNPS 4. Lower and upper montane conifer forests. Scrophulariaceae family.

- 36. Phacelia vallicola (mariposa phacelia). Quads uncertain. CNPS 4 chaparral, cismontane woodland, lower and upper conifer forests. Hydrophyllaceae family.
- 37. Polygonum bidwelliae (Bidwell's knotweed). Quads uncertain. CNPS 4. Chaparral, cismontane woodland, valley and foothill grasslands. Polygonaceae family.
- 38. Quercus lobata (valley oak). Most valley and foothill quads. CNPS 4. Cismontane woodland, valley and foothill grassland, riparian forest. Fagaceae family.
- 39. Rhynchospora californica (California beaked-rush).
 Paradise West and Richardson Springs quads. Fed C 2, CNPS
 1B. Freshwater seeps and marshes. Cyperaceae family.
- 40. Sagittaria sanfordii (Sanford's arrowhead). Berry Creek quad. Fed C2, CNPS 3. Marshes. Alismataceae family.
- 41. Sedum albomarginatum (Feather River stonecrop). Pulga quad. Fed C2, CNPS 1B. Rock outcrops and slopes. Crassulaceae family.
- 42. Senecio eurycephalus (cut-leaved butterweed). Berry Creek, Paradise East, Pulga and Stirling City quads. CNPS 1B. Cismontane woodland, lower montane conifer forest. Asteraceae family.
- 43. Senecio foetidus var. foetidus (sweet marsh butterweed). Quads uncertain. CNPS 3. Lower montane conifer forest. Asteraceae family.
- 44. Sidalcea robusta (Butte County checkerbloom), Cherokee, Chico, Cohasset, Hamlin Canyon, Paradise West and Richardson Springs quads. Fed C2, CNPS 1B. Chaparral and cismontane woodland. Malvaceae family.
- 45. Silene occidentalis ssp. longistipitata (western campion Butte Meadows quad. Fed C2, CNPS 3. Chaparral, lower montane conifer forest. Caryophyllaceae family.
- 46. Stellaria obtusa (obtuse stellaria). Jonesville quad. CNPS 3. Upper montane conifer forest. Caryophyllaceae family.
- 47. Streptanthus drepanoides (sickle-leaved jewelweed). Qua uncertain. CNPS 4. Chaparral. Brassicaceae family.
- 48. Streptanthus tortuosus (mountain jewelflower). Cohassel and Stirling City quads. CNPS 3. Serpentine soils. Brassicaceae family.

49. Tuctoria greenei (Greene's tuctoria). Biggs, Hamlin Canyon, Richardson Springs NW and Vina quads. Fed C1, DFG R, CNPS 1B. vernal pools. Poaceae family.

Addendum

- 50. Grindelia humilis (marsh gumplant). Butte City, Pennington, Sanborn Slough and West of Biggs quads. CNPS 4. Freshwater marsh. Asteraceae family.
- 51. Lepidium latipes (dwarf pepper-grass) Butte City, Pennington, Sanborn Slough and West of Biggs quads. CNPS 4. Valley and foothill grasslands. Brassicaceae family.
- 61. Penstemon neotericus (Plumas County beardtongue).
 Jonesville quad. CNPS 4. Lower montane conifer forest.
 Scrophulariaceae family.

Rare, Threatened or Endangered Species of Butte County

This is a compilation of those species occurring in Butte County which are listed in Sections 670.2 and 670.5, Title 14, California Administrative Code and in 50 CFR 17.11 of the Federal Register.

Status key:

SR - state rare

ST - state threatened SE - state endangered FT - federal threatened FE - federal endangered

A. Animals

1. Valley Elderberry Longhorn Beetle (<u>Desmocerus</u> californicus dimorphus)

FT status. Status caused by habitat loss and degradation. Impacts include land use coversions, flood control projects, channel maintenance, grazing herbicides, and fire. Occurs in riparian habitat along the Sacramento River and the lower portions of its tributaries. Completely dependent upon elderberry, particularly those with stems 1.5+ inches in diameter.

A resident species.

2. Winter-run chinook salmon (Oncorhynchus tshawytscha) SE, FT status. Status caused by flood control and channelization projects and water diversions which have destroyed or degraded habitat.

Adults migrate up the Sacramento River from December through July. Downstream migrating smolts occur from August to October.

3. Giant Garter Snake (Thamnophis couchi gigas)

ST status. Status caused by wetlands loss. Also impacted by pollution, destroyed food sources, snake collectors, and illegal killing.

Inhabits marshes, slow moving streams, canals, ponds and flooded fields (especially riceland). Highly aquatic. It is known to occur from the Butte Sink to Nelson. Other locales of possible occurrence include Angel Slough-Little Chico Creek, Honcut Creek, and its tributaries.

A resident species. Hibernates from November to March.

4. Aleutian Canada Goose (Branta canadensis leucopareia) FE status. Status caused by exotic predators on its Aleutian breeding ground. Hunting was formerly a significant impact on the winter ground.

Occurs in the Butte Sink from October to December, occasionally later. Feeds in croplands, favors corn. Roosts on flooded areas.

5. Bald Eagle (Haliaeetus leucocephalus)

SE, FE status. Status caused by pesticides (principally DDT). The population is slowly recovering. Other impacts include pollutants, nest disturbance by humans, and illegal kill.

There are two known breeding territories in Butte County. Winter populations may exceed 50 birds county wide. Lake Oroville is an important local wintering area. Eagles often congregate about waterfowl concentrations in ricelands. To be looked for around all but the smallest streams and ponds countywide.

A sparse breeding resident and fairly common winter resident.

6. Swainson's Hawk (Buteo swainsoni)

ST status. Status caused by loss of grassland (foraging) and woodland (nesting) habitats primarily to agricultural and urban land use conversion. Pesticides and rodenticides are additional problems.

It may be found throughout the valley portion of Butte County including the foothill edge. Most occurrences are west of Hwy 99. Small rodents are the preferred prey.

A March to September breeding resident.

7. American Peregrine Falcon (Falco peregrinus anatum)

SE, FE status. Status caused by DDT contamination. Human theft of nestlings is a problem.

To be looked for countywide in any season. Most birds occur from September to October. It is infrequently seen but of regular occurrence (one known breeding territory) in Butte County. Most often seen about bird concentrations.

A resident species, but most sightings may be of winter visitors.

8. California Black Rail (<u>Laterallus jamaicensis</u> coturniculus)

ST status. Status caused by wetlands destruction. There is one record for Gray Lodge Wildlife Area. Unconfirmed sightings have been made in the Nelson area. Its habitat is shallow marshes with short sedges and bulrush.

9. Greater Sandhill Crane (Grus canadensis tabida)

ST status. Status caused by loss of breeding habitat in northeastern California. Winter ground losses in the Central Valley are a growing problem. Human harassment, principally hunting, is a significant local problem.

More than half of the California population is known to occur in Butte County during fall and early winter. They roost in shallowly flooded marshes and sloughs. Most foraging occurs in grain fields. Grasslands, marshes, and pastures are used for feeding. Principal wintering areas are: Hwy 99 near Durham to Rancho Llano Seco, M&T Ranch, Nelson area, and the Butte Sink. May occur elsewhere in the valley. A September to April winter resident. A few have been known to summer locally.

10. Western Yellow-billed Cuckoo (<u>Coccyzus americanus</u> occidentalis)

SE status. Status apparently caused by DDT contamination, and pesticide use (particularly aerial spraying) in nesting territories. Riparian habitat loss and degradation, especially in the Central Valley south of Colusa, is the other major cause of the cuckoo population decline.

It is found along the Sacramento River and lower portions of the rivers tributaries. To be looked for along the Feather River up to Oroville. Cuckoo territories have been found in the Butte Sink and along Butte Creek.

A summer resident from May to September.

11. Great Gray Owl (Strix nebulosa)

SE status. Status caused by habitat loss and degradation. Forested nesting areas have been destroyed by logging. Meadow foraging areas have been lost to, or damaged by, reservoirs, grazing, roads, and buildings.

This owl has been known to occur east of Butte Meadows. It has probably been extirpated as a breeding resident, but could become reestablished. It requires large meadow systems for foraging and old growth timber for nesting.

12. Willow Flycatcher (Empidonax traillii)

SE status. Status caused by the loss and degradation of riparian habitat due to water projects, channel maintenance, grazing, roads, buildings, and pesticides. Cowbird parasitism of the nest may be a problem.

The flycatcher is dependent on willow habitats as a breeder. It may no longer breed in Butte County but it could become reestablished. During migration it may be found countywide in riparian habitat and open woodlands.

A spring (April-May) and fall (August-September) migratory transient.

13. Bank Swallow (Riparia riparia)

ST status. Status caused by bank protection projects which destroy eroding banks and bank swallow nestlings.

Occurs along the Sacramento and Feather rivers. Requires vertical, eroding banks with soft soil. Forages over open water and, somewhat, over open land. A colonial nesting species.

A breeding resident from March to October.

14. Least Bell's Vireo (Vireo bellii pusillus)

SE, FE status. Status' caused by the loss and degradation of riparian habitat. Cowbird parasitism of vireo nests have compounded the problem. Pesticides are another problem of unknown magnitude.

Formerly a common summer resident in Sacramento Valley riparian habitat. It is believed to have become extirpated about 1965. Its reestablishment is possible.

15. Sierra Nevada Red Fox (<u>Vulpes vulpes necator</u>)

ST status. Cause of status uncertain. Probable impacts include logging, grazing, reservoirs, roads, trapping, buildings, and disturbance by humans.

Found primarily in fir and lodgepole pine forests. Meadows are probably important for foraging. This fox has been seen east of Butte Meadows. It may be found below 4,000 feet elevation.

The red fox found in the Sacramento Valley is an eastern race not known to be found above the lower foothills.

The native fox should be a permanent resident.

16. Wolverine (Gulo gulo)

ST status. Cause of status uncertain. Probable impacts include logging, grazing, reservoirs, roads, buildings, and disturbance by humans.

There have been unsubstantiated sightings of this species in the Humbug Summit-Philbrook area. It is generally found in alpine habitats.

A possible permanent resident above 5,000 feet elevation.

B. Plants

1. Butte County (Shippee) Meadowfoam (Limnanthes floccosa sp. Californica)

SE status. Status caused by the destruction of vernal swale habitats mostly resulting from urban sprawl and agriculture. Grazing is a significant impact.

Meadowfoam occurs in scattered populations from north of Chico to the Shippee area. Its habitat is vernal swales of the alluvial apron at the valley-foothill junction. The flowering period is primarily March-April. Other subspecies of the species occurs in Butte County.

2. Greene's Orcut Grass (Tuctoria greenei)

SR status. Status caused by vernal pool destruction. Grazing is an additional problem.

Known to occur at Pentz and Richvale vernal pools.

May occur elsewhere. All known locations are in the alluvial apron at the valley-foothill junction, which may extend far into the valley. Flowers in late spring. The species is in reality endangered.

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D. LIST OF PERSONS CONSULTED





PERSONS CONTACTED

Al McGreehan, Planning Director, Town of Paradise

Charles Stump, Senior Planner, Town of Paradise

Leo Tromley, Police Chief, Acting Fire Chief, Town of Paradise

Ken Whorton, Town Manager, Town of Paradise

Jon Lander, Town Engineer, Town of Paradise

Ronald Hawk, Public Works Department, Town of Paradise

Jim Norvall, Economic Development Director, Town of Paradise

Eleanor Brandt, Feather River Hospital

Dr. Richard Landess, Superintendent, Paradise Unified School District

Brent Moore, Butte County Association of Governments

Craig Sanders, Butte County Planning Department

Paula Leisure, Butte County Planning Department

Terry Ashe, Paradise Recreation and Parks District

Phil Kelly, Paradise Irrigation District

Robert Fortino, Del Oro Water Company

Paradise General Plan EIR



Jerry Smith, U.C. Cooperative Extension, Butte County

Bob Davies, California Department of Forestry, Redding

Dave Wagner, Division of Mines and Geology, Sacramento

George Sasedo, Division of Mines and Geology, Pleasant Hill

Richard Flint, Department of Fish and Game, Oroville

Ron Bertram, Department of Fish and Game, Rancho Cordova

Camilla Cleary, Department of Housing and Community Development, Sacramento

Dick Edwards, Oroville District, Plumas National Forest

Adrian Fitzpatrick, Manager, PG&E

Walt Pierce, Associate Civil Engineer, Town of Paradise

Deborah Furgason, Public Safety Technician, Town of Paradise

Charlotte A. Rhea, Office of the Attorney General, Sacramento

Bob Jones, Butte County Public Works

James Camy, Butte County Mosquito Abatement District

Yazman Sutter, Integrated Waste Management Board, Sacramento

Gary Honcop, California Air Resources Board, Sacramento

John Belhammer, California Air Resources Board, Sacramento

Wally Hearst, California State Firemen's Association



Cynthia Howse, California Department of Parks and Recreation, Office of Historic Preservation

Cathy Pitts, Planning Department, Town of Paradise

Tom Reed, Planning Intern, Town of Paradise

Larry Painter, Butte County Planning Department

Mike Huerta, Butte County Environmental Health

Ted Crawford, Fire Prevention Unit Butte County Fire Department/California Department of Forestry and Fire Protection

Lorene Eagleson, Homeless coordinator, Butte County Community Action Agency

Dennis Ivey, Economic Development Director, Town of Paradise

Dan Cook, Project Manager, Town of Paradise



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E. LIST OF PERSONS RESPONSIBLE FOR PREPARATION OF THIS EIR





LIST OF PERSONS RESPONSIBLE FOR PREPARATION OF THIS EIR

Eugene E. Smith, Project Manager, QUAD Consultants

Roberta MacGlashan, AICP, Principal Planner, QUAD Consultants

John F. Tow, AICP, Senior Analyst, QUAD Consultants

Alfred Farber, SOPA-Certified Archaeologist, QUAD Consultants

John Dowden, Principal Transportation Planner, Dowling Associates

Jim Brennan, Brown-Buntin Associates

Wes Rhodehamel, Senior Biologist, QUAD Consultants



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F. TRANSPORTATION AND CIRCULATION



Trip Generation Report

Forecast for

Zone #	Subzone		Amount	Units						
1	Zone	1	20.00 87.12 Subtotal	SR TC in KSF	3.83 7.20	3.83 7.20	77 627 704	77 627 704	154 1254 1408	0.3 2.7 3.0
2	Zone	2	15.00 Subtotal	SR	3.83	3.83	57 57	57 57	114 114	0.2
3	Zone	3	20.00 Subtotal	SR	3.83	3.83	77 77	77 77	154 154	
4			20.00	SR	3.83	3.83	77			0.3
5 5	Zone	5	65.34 20.00 Subtotal	CS in KSF SR	2.70 3.83	2.70 3.83	176 77 253	176 77 253	352 154 506	0.8 0.3 1.1
6	Zone	6	10.00 56.00 Subtotal	AR SR	3.83	3.83 3.83	214	214	428	0.9
7 8 9 10 10	Zone	10	0.00 0.00 0.00 9.00 57.00 Subtotal	AR SR	0.00 0.00 0.00 3.83 3.83	0.00 0.00 0.00 3.83 3.83	0 0 0 34 218 252	0 0 0 34 218 252	0 0 0 68 436 504	0.0 0.0 0.1 0.9
11 11 11		1.	6.00 21.00 21.78 Subtotal	AR SR TC in KSF	3.83 7.20	3.83 3.83 7.20	80 157	80 157	160 314	0.3
12 12		12	6.00 10.89 Subtotal	SR TC in KSF	3.83 7.20	3.83 7.20	23 78 101	23 78 101	46 156 202	0.1 0.3 0.4
13	Zone	13	21.00 Subtotal	SR ·	3.83	3.83	80 80	80 80	160 160	0.3
14 14		14	28.00 - 25.00 Subtotal	AR SR	3.83	3.83 3.83	96	107 96 203	214 192 406	0.5 0.4 0.9

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			AVE	erage party ira						
Zone #	Subzone			Units	Rate In	Rate	Trips In			
15			3.00		3.83	3.83	11	11 11	22 22	0.0
16 16	Zone	16	35.00 80.00 Subtotal	AR SR	3.83 3.83	3.83 3.83	134 306 440	134 306 440	268 612 880	0.6 1.3 1.9
17 17			14.00		3.83	3.83	54	54	108	0.2
18	Zone	18	10.00 Subtotal	SR	3.83	3.83	38 38	38 38	76 76	0.2
19	Zone	19	Subtotal	SR		• • • • • • •	38		76 76	0.2
20	Zone	20		TC in KSF						
21	Zone	21	10.89 Subtotal	TC in KSF	7.20	7.20	78 78	78 78	156 156	
22 22	Zone	22	47.00 12.00 Subtotal	SR MF	3.83 3.23	3.83 3.23	180 39 219	180 39 219	360 78 438	0.2
23 23	Zone	23	46.00 11.00 Subtotal		7 27	3.83 3.23	34	176 36 212	72	0.2
24			6.00		3.83	3.83	23	23 23	46 46	0.1
25 26 27 28			0.00 0.00 0.00 8.00	MF	0.00 0.00 0.00 3.23	0.00 0.00 0.00 3.23	0 0 0 26	0 0 0 26	0 0 0 52	0.0 0.0 0.0 0.1
	Zone	28	Subtotal		• • • • • • •	• • • • • • •	26	26	52	0.1
29	Zone	29								
30 31	Zone	31	0.00 36.48 Subtota	TC in KSF	0.00 6.00	0.00	0 219 219	0 219 219	0 438 438	0.0 0.9 0.9
32				TC in KSF						

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Zone #	Subzone		Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
32	Zone	32	8.00 Subtotal	TR	3.83	3.83	31 139	31 139	62 278	0.1
33 33	Zone	33	30.00 38.12 Subtotal	SR TC in KSF	3.83 6.00	3.83 6.00	115 229 344	115 229 344	230 458 688	0.5 1.0 1.5
34	Zone	34	29.00 Subtotal		3.83	3.83	111 111	111 111	222 222	0.5
35 35	Zone	35	87.12 10.89 Subtotal	CC in KSF TC in KSF	6.00 6.00	6.00 6.00	523 65 588	523 65 588	1046 130 1176	2.3 0.3 2.5
36	Zone	36		MF	3.23	3.23	242 242	242 242	484 484	1.0
37	Zone	37	21.78 Subtotal	TC in KSF	6.00	6.00	131 131	131 131	262 262	0.6
38	Zone	38	50.00 Subtotal	SR	3.83	3.83	192 192	192 192	384 384	
39	Zone	39	50.00 Subtotal	SR	3.83	3.83	192 192	192 192	384 384	0.8
40 40 40					3.83 14.40 3.83					
41 41			3.00 54.00	AR SR		3.83 3.83	11 207	11 207	22 414	0.0
42 42 42		42	21.78	AR SR TC in KSF	3.83 3.83 6.00	3.83 3.83 6.00	207 131	207 131	414 262	0.9
43 43	Zone	43	3.00 54.00 Subtotal	AR SR	3.83 3.83	3.83 3.83	11 207 218	11 207 218	22 414 436	0.0
44			2.00	AR SR	3.83 3.83	3.83	8 207	8 207	16 414	0.0

Zone #					Rate In					
45 46 46	Zone	46	0.00 50.00 21.78	SR NC	0.00 3.83 14.40	0.00 3.83 14.40	0 192 314 506	0 192 314 506	0 384 628 1012	0.0 0.8 1.4 2.2
47					2.30					
48 49	Zone	49	0.00 14.00 Subtotal	SR	0.00 3.83	0.00 3.83	0 54 54	0 54 54	0 108 108	0.0 0.2 0.2
50 50	Zone	50	10.00 248.00 Subtotal	AR MF	3.83 3.23	3.83 3.23	38 801 839	38 801 839	76 1602 1678	0.2 3.5 3.6
51 51 51			165.00	SR		3.83	632	632	1264	2.7
52			729.63	LI in KSF	1.05	1.05	766	766	1532	3.3
53 53	Zone	53	59.00 196.02 Subtotal	AR LI in KSF	3.83 1.05	3.83 1.05	226 206 432	226 206 432	452 412 864	1.0 0.9 1.9
54 54	Zone	54	40.00 67.00 Subtotal	AR SR	3.83 3.83	3.83 3.83	153 257 410	153 257 410	306 514 820	0.7 1.1 1.8
5 5 5 5	Zone	5 5	40.00 70.00 Subtotal	AR SR	3.83 3.83	3.83 3.83	153 268 421	153 268 421	306 536 842	0.7 1.2 1.8
56 56	Zone	56	20.00 30.00 Subtotal	SR MF	3.83 3.23	3.83 3.23	77 97 174	77 97 174	154 194 348	0.4
57 57	Zone	57	40.00 90.00 Subtotal	AR SR	3.83 3.83	3.83 3.83	153 345 498	153 345 498	306 690 996	0.7 1.5 2.1
58 58	Zone	58	42.00 10.89 Subtotal	SR TC in KSF	3.83 6.00	3.83	161 65 226	161 65 226	322 130 452	0.7 0.3 1.0

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Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
59 59 59 59	7000 50	50.00 41.00 15.00 10.89		3.83 3.83 3.23 6.00	3.83 3.83 3.23 6.00	192 157 48 65	192 157 48 65	384 314 96 130	0.8 0.7 0.2 0.3 2.0
61	Zone 61	96.00 Subtotal	SR	3.83	3.83	368 368	368 368	736 736	1.6
62 62	Zone 62	6.00 3.00 Subtotal	AR TR	3.83 3.83	3.83 3.83	23 11 34	23 11 34	46 22 68	0.1 0.0 0.1
63	Zone 63	21.78 Subtotal	TC in KSF	6.00	6.00	131 131	131 131	262 262	0.6
64	Zone 64	10.89 Subtotal	TC in KSF	6.00	6.00	65 65	65 65	130 130	0.3
65	Zone 65	280.00 Subtotai	SR	3.83	3.83	1072 1072	1072 1072	2144 2144	4.6
66 66	Zone 66	37.00 281.00 Subtotal	AR SR	3.83 3.83	3.83 3.83	142 1076 1218	142 1076 1218	284 2152 2436	0.6 4.6 5.3
68 69	Zone 69	0.00 43.56 Subtotal	TC in KSF	0.00 6.00	0.00	0 261 261	0 261 261	0 522 522	0.0 1.1 1.1
70 70 70	Zone 70	3.00 23.00 38.12 Subtotal	TR MF TC in KSF	3.83 3.23 6.00	3.83 3.23 6.00	11 74 229 314	11 74 229 314	22 148 458 628	0.0 0.3 1.0 1.4
71	Zone 71	5.00 Subtotal	SR	3.83	3.83	19 19	19 19	38 38	0.1
72 72	Zone 72	10.89 24.00 Subtotal	TC in KSF TR	6.00 3.83	6.00	65 92 157	65 92 157	130 184 314	0.3 0.4 0.7
73	Zone 73	80.59 Subtotal	LI in KSF	1.05	1.05	85 85	85 85	170 170	0.4
74 74	Zone 74	377.32 108.90 Subtotal	BP in KSF CS in KSF	1.76	1.76	664 250 914	664 250 914	1328 500 1828	2.9 1.1 3.9

						,			
Zone #	Subzone	Amount	Units	Rate In	Rate Out	In	Out	Trips	Total
		•••••			•••••				
75 76 76		58.00 543.99	AR BP in KSF	3.83 1.76	3.83 1.76	222 957	222 957	444 1914	0.0 1.0 4.1 5.1
77 77		258.00	AR SR	3.83	3.83	988	988	1976	
78 79 79 79		558.00 861.00 147.00	AR SR MF	1.88 1.88 1.88	1.88 1.88 1.88	1049 1619 276	1049 1619 276	2098 3238	
80 80		85.00	AR SR	3.83	3.83	326	326	528 652 1180	1.4
TOTAL									

Trip Distribution Report

Percent Of Trips

	1	2	3	4	To 5	Gates 6	7	8	9	10	11
Zone											
1 23 45 67 89 10 11 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 33 34 35 36 37 37 38 38 38 38 38 38 38 38 38 38 38 38 38	8.99.99.99.99.99.99.99.99.99.99.99.99.99	777777777777777777777777777777777777777	10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	999999999999999999999999999999999999999	12.4 12.4 12.4 12.4 12.4 12.4 12.4 12.4	8.99.99.99.99.99.99.99.99.99.99.99.99.99		3.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8	0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.

			_		To	Gates	_					
	1	2	3	4	5	6	7	8	9	10	11	
Zone												
46 47 48 49 50 51 52 53 54 55 56 57 58 59 61 62 63 64 65 66 68 69 70 71 72 73 74 75 76 77 78	8.9999999999999999999999999999999999999	7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4	10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	9.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	12.4 12.4 12.4 12.4 12.4 12.4 12.4 12.4	8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9		3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8	0.9	12.8 12.8 12.8 12.8 12.8 12.8	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	
79	8.9	7.4	10.5	9.4	12.4 12.4	8.9 8.9	0.0	3.8	0.9	12.8	0.3	
80	8.9	7.4	10.5	9.4	12.4	8.9	0.0	3.8		12.8		
			Gates									
Zone	12	13	14	15	16							
-												
1 2 3 4 5 6 7 8 9 10	1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0	5.7 5.7 5.7 5.7 5.7 5.7 5.7	7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	10.4 10.4 10.4 10.4 10.4 10.4 10.4							

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			Gates	4-	
Zone	12	13	14	15	16
12	1.6	0.0	5.7	7.0	10.4
13 14	1.6 1.6	0.0	5.7 5.7	7.0 7.0	10.4
15	1.6	0.0	5.7	7.0	10.4
16	1.6	0.0	5.7	7.0	10.4
17	1.6	0.0	5.7	7.0	10.4
18	1.6	0.0	5.7	7.0	10.4
19	1.6	0.0	5.7	7.0	10.4
20 21	1.6 1.6	0.0	5.7 5.7	7.0	10.4
22	1.6	0.0	5.7	7.0	10.4
23	1.6	0.0	5.7	7.0	10.4
24	1.6	0.0	5.7	7.0	10.4
25	1.6	0.0	5.7	7.0	10.4
26	1.6	0.0	5.7	7.0	10.4
27 28	1.6 1.6	0.0	5.7 5.7	7.0 7.0	10.4
29	1.6	0.0	5.7	7.0	10.4
30	1.6	0.0	5.7	7.0	10.4
31	1.6	0.0	5.7	7.0	10.4
32	1.6	0.0	5.7	7.0	10.4
33 34	1.6	0.0	5.7 5.7	7.0	10.4
35	1.6	0.0	5.7	7.0	10.4
36	1.6	0.0	5.7	7.0	10.4
37	1.6	0.0	5.7	7.0	10.4
38	1.6	0.0	5.7	7.0	10.4
39	1.6	0.0	5.7	7.0	10.4
40	1.6	0.0	5.7	7.0	10.4
41 42	1.6	0.0	5.7 5.7	7.0 7.0	10.4
43	1.6	0.0	5.7	7.0	10.4
44	1.6	0.0	5.7	7.0	10.4
45	1.6	0.0	5.7	7.0	10.4
46	1.6	0.0	5.7	7.0	10.4
47	1.6	0.0	5.7	7.0	10.4
48 49	1.6	0.0	5.7 5.7	7.0 7.0	10.4
50	1.6	0.0	5.7	7.0	10.4
51	1.6	0.0	5.7	7.0	10.4
52	1.6	0.0	5.7	7.0	10.4
53	1.6	0.0	5.7	7.0	10.4
54	1.6	0.0	5.7	7.0	10.4
55 56	1.6	0.0	5.7	7.0	10.4
57	1.6	0.0	5.7 5.7	7.0 7.0	10.4
58	1.6	0.0	5.7	7.0	10.4
59	1.6	0.0	5.7	7.0	10.4
61	1.6	0.0	5.7	7.0	10.4

			A4C1 0	, , , , , ,		 	 	
			Gates					
	12	13	14	15	16			
Zone								
62	1.6	0.0	5.7	7.0	10.4			
63	1.6	0.0	5.7	7.0	10.4			
64	1.6	0.0	5.7	7.0	10.4			
65	1.6	0.0	5.7	7.0	10.4			
66	1.6	0.0	5.7	7.0	10.4			
68	1.6	0.0	5.7	7.0	10.4			
69	1.6	0.0	5.7	7.0	10.4			
70	1.6	0.0	5.7	7.0	10.4			
71	1.6	0.0	5.7	7.0	10.4			
72	1.6	0.0	5.7	7.0	10.4			
73	1.6	0.0	5.7	7.0	10.4			
74	1.6	0.0	5.7	7.0	10.4			
75	1.6	0.0	5.7	7.0	10.4			
76	1.6	0.0	5.7	7.0	10.4			
				7.0				
77	1.6	0.0	5.7		10.4			
78	1.6	0.0	5.7	7.0	10.4			
79	1.6	0.0	5.7	7.0	10.4			
80	1.6	0.0	5.7	7.0	10.4			

Link Volume Report

Volume		NB L	ink		SB Li	ink		EB Li	nk		WB Li	nk	Total
Type	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	Volume
#1 Sky	,				9410	45000	204	4476	2072	1700	1/09	7204	7/776
Added	2770	2770	5540	3221	3221		0	1176	2072	451		902	
Total 1	11156	8874	20030	9619	11831	21450	896	1176	2072	2159	1949	4108	4765
#2 Clar Base			Skywa 8624		0004	15316	0	42	/2	5278	2/08	7686	31668
Added	2356	2356	4712	2770	2770	5540	0	0	0	414	414	828	11080
Total	7592	5744	13336	8090	12766	20856	C	42	42	5692	2 2822	8514	4274
#3 Skyw Base					6/.12	10598	0	0	0	392	532	924	21784
Added	2996	2996	5991	2996	2996	5991	0	0	0	0	0	0	11983
Total	9310	6944	16253	7182	9408	16589	0	0	0	392	532	924	33767
#4 Sky					75.60	11298	1784	162/	3010	2520	3626	61/.6	34384
Added	3520	3520	7039	3171	3171	6342	209	209	417	1279	1279	2558	16357
Total 1	3068	7902	20969	6909	10731	17640	1595	1833	3427	3799	4905	8704	5074
#5 Sky					0002	15554	2226	2752	4578	372/	4522	827.6	50204
Added	4756	4756	9512	4187	4187	8374	510	510	1021	2071	2071	4142	23049
Total 1	7356	13982	31338	10739	7 1318	19 23928	273	6 286	2 5599	9 579	75 659.	3 1238	8 732
#6 Skyw Base 1					13328	21490	0	0	n	1484	1512	2996	4536
Added	4926	4926	9851	4777	4777	9554	0	0	0	149	149	297	19702
lotal	7960	12/66	30725	12939	7 1810	31044		0 (D (J 163	3 166	1 329	3 650
#7 Skyw Base 1					12474	22218	2044	. 3318	5362	491	1022	1512	5325
Added	5683	5683	11366	5598	5598	11196	590	590	1180	0	0	0	23742
					2 1807	2 33414	263	4 3908	8 6547	2 45	70 102	2 151	2 769
#8 Sky					14420	24458	924	1190	2114	5390	6006	11396	6246
Added	5293	5293	10585	5910	5910	11820	0	0	0	1966	1966	3931	26336
					3 2033	0 36278	92	4 1190	3 2114	4 732	06 1971	2 1532	7 888
#9 Skyw Base 1					14210	22372	924	672	1596	154	280	434	4653
Added	5140	5140	10279	5140	5140	10279	0	0	0	0	0	0	20558
lotat	7108	13246	32413	13302	1935	0 32651	92	4 672	2 1596	5 15	4 280	3 43	4 670

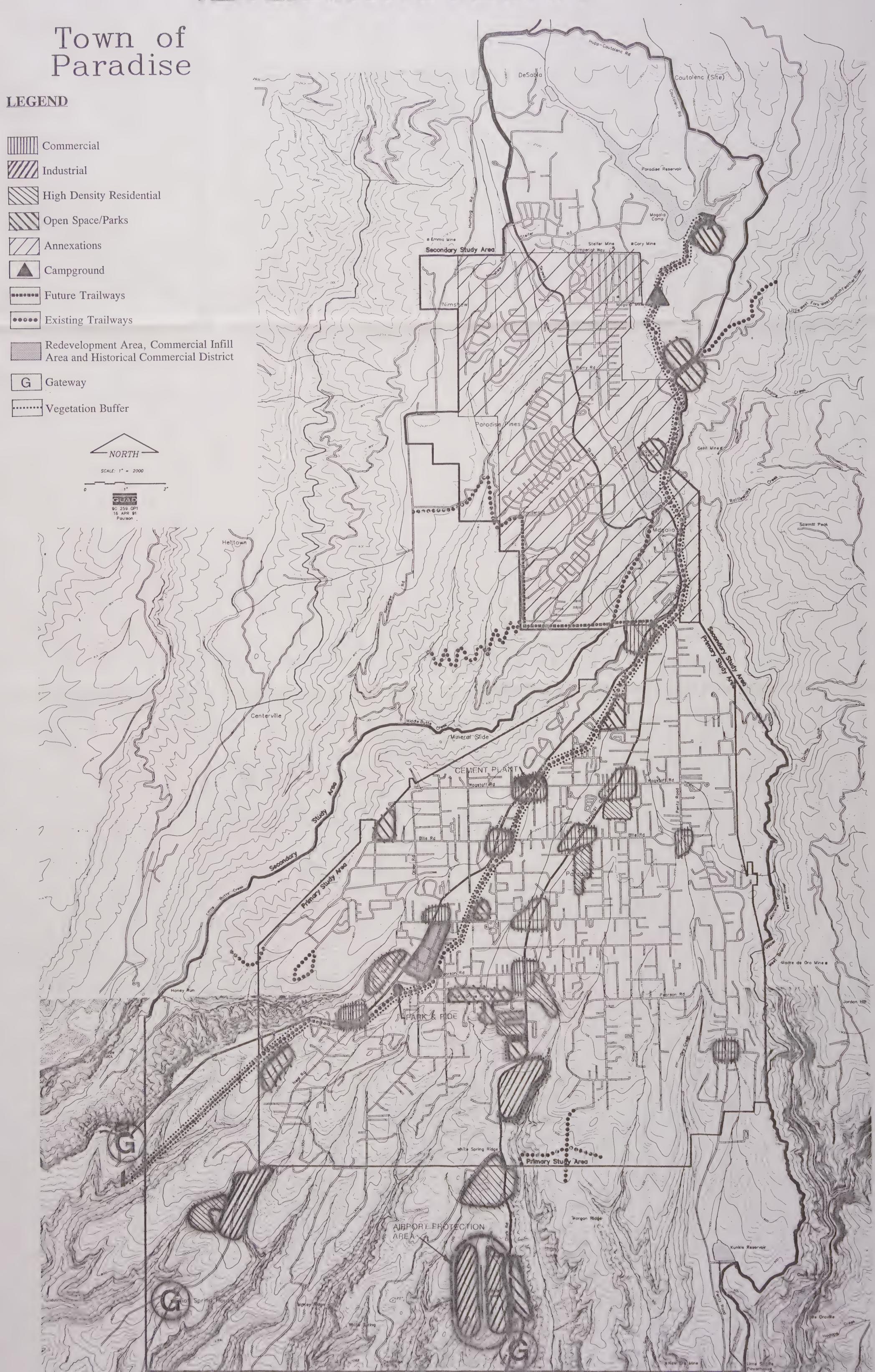
			,	verag	ge Dai	ly Traf	fic (Condit	ions				
Volume Type	In	NB Li	ink Total	In	SB Li Out	nk Total	In	EB Li	nk Total	In	WB Lin	nk Total	Total Volume
Base	15568	11312	13421	971 <i>6</i>	5379	8 23114 10757 7 33871	0	0	0	4929	4929	9857	0 608 34035 07 94
Base Added	13202 1678	7168 1678	20370 3356 23726	8414 5033	5033		260 0 260			3685	3685	3934 7370 11304	20792
Base Added	5870 2090	5430 2090	nd Wags: 11300 4180 15480	4560 1044	4620 1044	2088	1283	2290 1283 3573		952	3180 952 4132	5490 1904 7394	31040 10739 41779
Base Added	10090 3895	6840 3895	7791	6680 2609	10300	16980 5217 9 22197	2065	2065	4130	1654	1654	3308	20446
Base Addeci	8160 3894	7350 3894	7788	7280 4040	8400 4040	15680 8080 0 23760	242	242	485	0	0	0	33500 16353 0 498
Base Added	8040 4115	6530 4115	8231	8400 3916	8180 3916	16580 7831 96 24411	1908	1908	3816	294	294	587	20465
Base Added	8520 4124	5860 4124	nd Nunn 14380 8248 22628	5860 4136	8040 4136	13900 8271 5 22171	520 30 55	370 30 0 400	890 61 951	196	1680 196 3 1876	393	16973
Base Added	5330 5552	2680 5552	11105	5200 4124	8000 4124	13200 8248 21448	4856	4856	9713	3496	3660 3496 5 7156	6992	36058
Base Added	3530 4810	2650 4810	9620	3180 5413	4260 5413	7440 10826 18266	61	61	123	0 839 839		1678	16180 22247 38427
Base Added	2270 1344	2080 1344	2687	2070 733	2840 733	4910 1466 6376	1624	1624	3249	G	0	0	13840 7402 21242
Trai	ffix S	ystem	Versio	n 6.4	(c) 1991 [A	Li	censed	to De	owling	Assoc	iates

Fri May 1, 1992 12:40:47 Page 3-3 Town of Paradise - General Plan Update Dowling Associates - February 1992 Average Daily Traffic Conditions

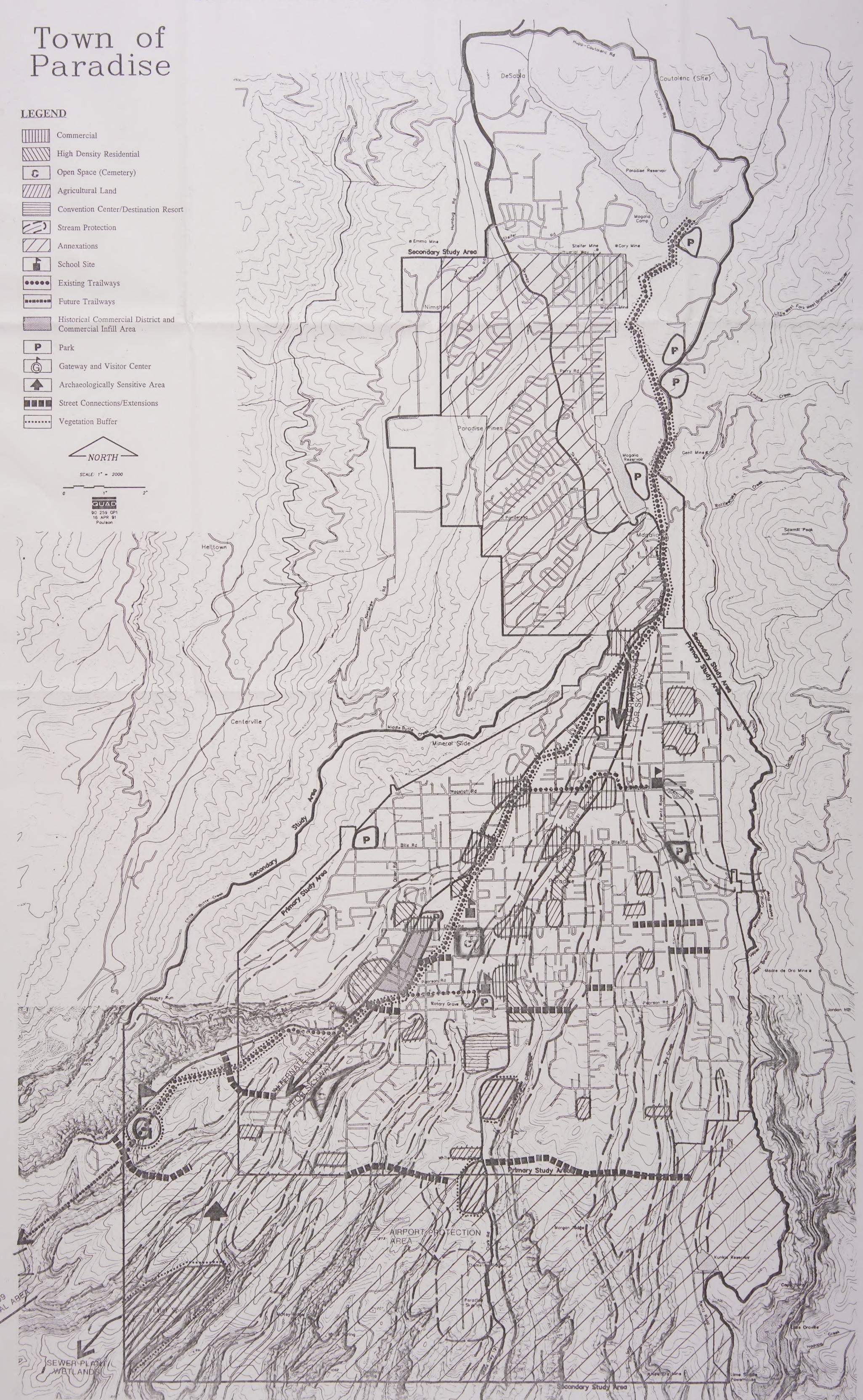
Average Daily Traffic Conditions									
Volume NB Li Type In Out		SB Link Out Total	In	EB Li Out	ink Total		WB L	ink	Total Volume
#20 Pentz Road ar Base 2260 1990 Added 2423 2423 Total 4683 4413	nd Bille Road 4250 2210 2 4845 1478 3 9095 3688 3	1478 2955	1435	2040 1435 3475	3720 2870 6590	0	0	0	12300 10670 22970
#21 Pentz Road an Base 1960 2670 Added 1585 1585 Total 3545 4255	nd Pearson Ros 4630 1910 1 3171 2376 2 7801 4286 4	1680 3590 2376 4753	2537	1930 2537 4467	4340 5074 9414	0 0	0	0	12560 12998 25558
#22 Pentz Road an Base 1820 1550 Added 1082 1082 Total 2902 2632	3370 2020 2 2165 1082 1 5535 3102 3	2310 4330 1082 2165	480 0 480	450 0 450	930 0 930	410 0 410	420 0 420	830 0 830	9460 4330 13790
#26 Elliot Road a Base 70 100 Added 0 0 Total 70 100	nd Maxwell Dr 170 2230 1 0 28 170 2258 1	1100 3330 28 56	1962	5070 1962 7032	9730 3924 13654	1934	5140 1934 7074	9590 3868 13458	22820 7848 30668
#27 Pearson Road Base 720 460 Added 61 61 Total 781 521	1180 390 123 0	490 880 0 0	4929	4929	10920 9857 20777	4867	4867	11240 9735 7 2097	
#29 Sawmill Road Base 1420 1250 Added 0 0 Total 1420 1250	and Bille Roa 2670 120 0 0 2670 120	130 250 0 0 130 250	1647	2930 1647 4577	6410 3294 9704	1647	3330 1647 4977	5950 3294 9244	15280 6589 21869
#30 Sawmill Road Base 1620 2080 Added 179 179 Total 1799 2259	3700 1260 1	570 2830 105 210	1820 283 2103	283	2840 567 3407	180 0 180	210 0 210	390 0 390	9760 1133 10893
#31 Sawmill Road Base 1170 1450 Added 179 179 Total 1349 1629	and Nunneley 2620 1470 1 357 179 2977 1649 1	600 3070 179 357	1090 167 1257	970 167 1137	2060 334 2394	1210 167 1377	920 167 1087	2130 334 2464	9880 1382 11262
#32 Sawmill Road Base 360 470 Added 174 174 Total 534 644	and Pearson R 830 1460 348 179 1178 1639 1	960 2420 179 357	3560 2808 6368		6040 5616 11656	2650 2864 5514	2864	6770 5727 12497	16060 12048 28108

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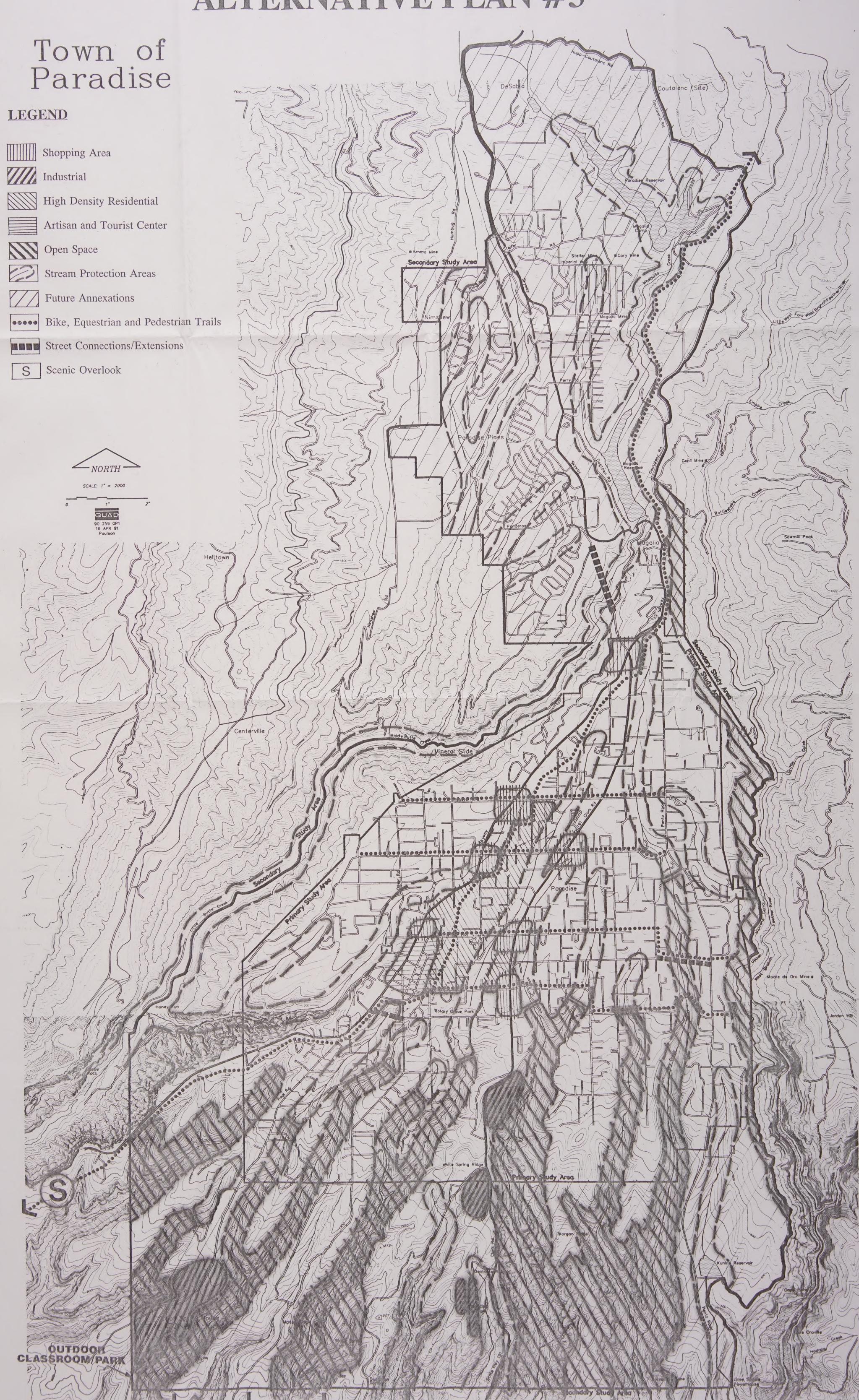
ALTERNATIVE PLAN WI



ALTERNATIVE PLAN #2



ALTERNATIVE PLAN #3



ALTERNATIVE PLAN #4

